Saskatchewan
Education
Special Education Unit

Introduction

Philosophy

The Nature of Intellectual and Multiple Disabilities

Effective Practices

Collaboration and Team Building

Developing Curriculum: The Personal Program Plan

Systematic Instruction

Developing Communication Skills

Developing Social Skills

Social-Sexual Development

The Issue of Abuse

Promoting Positive Behaviour

The Student with a Multiple Disability

Transition

Creating Opportunities

for Students with Intellectual or Multiple Disabilities

Supporting student diversity

September 2001

ISBN 1-89473-22-9

103-07607/

Table of Contents

1. Introduction **7**

2. Philosophy **11**

Inclusive Education 12

Rationale: The Benefits of Inclusive Education 13

Recommended Reading 19

3. The Nature of Intellectual and Multiple Disabilities **21**

Intellectual Disability 22

Multiple Disability 22

Commonly Identified Learning and Performance Characteristics 23

Common Etiologies 24

Recommended Reading 25

4. Effective Practices **27**

School Structures: The Critical Elements of an Inclusive School 28

Instructional Factors: Recognized Effective Practices 36

Recommended Reading 42

5. Collaboration and Team Building **45**

The Collaborative Team 46

Assumptions of the Collaborative Team Approach: The Potential of all Children 48

Rationale for Collaboration 48

Developing Effective Collaboration Skills 50

School Leadership: Promoting Collaboration 55

Team Membership 56

Family Involvement: Building the Partnership 62

Working with Paraprofessionals 67

Addressing Cultural Diversity Among Members 75

Team Development 75

Recommended Reading 79

6. Developing Curriculum: The Personal Program Plan **83**

Core Curriculum and Common Essential Learnings 84

Functional Curriculum: The Personal Program Plan 87

Defining the Personal Program Plan 88
Approaches to Curriculum Development 89
The Process for Personal Program Plan Development 93
The Evolving Curricular Emphasis 106
Recommended Reading 109

7. Systematic Instruction 111

Major Considerations for Planning Systematic Instruction 112
Teaching the Student with an Intellectual or Multiple Disability: A Balance of Approaches 114
Establishing the Learning Environments 122
Inclusive Instruction within the Regular Classroom: Meaningful Participation 127
Specific Instructional Considerations 138
Issues of Frequent Concern 144
Evaluation and Reporting Student Progress 160
Recommended Reading 165

8. Developing Communication Skills 171

Definitions: Communication, Speech and Language 172
Trained Personnel: The Speech-Language Pathologist 172
Intervention: Assessment and Instruction 173
Augmentative and Alternative Communication Systems 177
Strategies for the Classroom 179
Recommended Reading 182

9. Developing Social Skills 183

Defining Social Skills 184
The Importance of Social Competence 185
Facilitating Friendships 186
Developing a Natural Support Network 192
The Need for Systematic Instruction 194
Developing Social Competence 195
Recommended Reading 206

10. Social-Sexual Development 209
Sexuality as Normal and Acceptable 210
The Development of Sexuality 210
The Need for Programming and Instruction 210
Curricular Components 211
Resources 213
Recommended Reading 214
11. The Issue of Abuse 215
The Prevalence of Abuse Among People with Disabilities 216
The Long-Term Effects 217
Preventing Abuse 217
Resources 220
Recommended Reading 221
12. Promoting Positive Behaviour 223
The Basic Process for Behaviour Management: Positive Programming 224
Background: The Universal Need for a Quality Life 225
Defining Inappropriate Behaviour: Criteria and Basic Assumptions 226
Functional Assessment 228
Developing A Hypothesis 232
Strategies For Intervention: Positive Programming and Positive Behavioural Support 233
Recommended Reading 258
13. The Student with a Multiple Disability 261
Definition 262
The Student with a Physical Disability 262
The Student with a Visual Disability 272
The Student who is Deaf or Hard of Hearing 277
The Student with Health-Related Concerns 281
Recommended Reading 283

14. Transition **285**
The Importance of Transition 286
Components of an Effective Transition Plan 286
Emerging Initiatives In Transition 289
The Transition Meeting 290
Community Resources 292
Recommended Reading 294
15. Bibliography **297**
Bibliography 297
Websites 332
16. Appendices .... **335 -418**

Acknowledgements

Saskatchewan Education extends thanks to the writer of this document, Larry McGuire, and desktop publisher, Lorelei Horacki-Swenson. Appreciation is also extended to the members of the Reference Committee:

Doug Darbellay
Teacher
St. Paul's R.C.S.S.D. No.20

Tricia Darroch
Teacher
Biggar S.D. No. 50

Verna Eaton
Teacher
Saskatchewan Valley S.D. No. 49

Dorothy Finlayson
Regional Superintendent
of Children's Services
Region 1, Saskatchewan Education

Wanda Lyons
Assistant Director
Special Education Unit
Saskatchewan Education

Kathy Muttart
Student Services Coordinator
Saskatchewan Valley S.D. No. 49

Jane Newton
Assistant Superintendent
Regina S.D. No. 4

Alison Peake
Principal
Shaunavon S.D. No. 71

Pamela Woodsworth
Parent Representative
Saskatchewan Association for
Community Living

Anita Nargang
Learning Assistance Teacher
Buffalo Plains S.D. No. 21

Dedicated to the memory of Bob Auser,
an exceptional Saskatchewan educator.

1 Introduction

Creating Opportunities for Students with Intellectual and Multiple Disabilities is a revision of *Meeting Challenging Needs* (Saskatchewan Education, 1989). The original *Meeting Challenging Needs* represented state of the art research and applied instructional strategy for the education of students with intellectual and multiple disabilities. *Meeting Challenging Needs* proposed and promoted an educational process that:

- ensures highly individualized, child-centred program development documented through a personal program plan;
- purposefully invites and shares educational responsibility with the student's family;
- provides education with age-appropriate student peers who are not disabled;
- provides carefully planned and systematic instruction;
- develops individualized educational goals that are functional for the life and life direction of the particular student involved;
- is future orientated;
- adopts teaching methods that are as natural and least intrusive as possible;
- utilizes age-appropriate materials and furnishings;
- provides instruction in the home and community as well as in the classroom and other school environments;
- supports a transdisciplinary problem-solving and decision-making model and the subsequent practice of integrated related service and instruction; and
- supports teachers as decision makers.

Meeting Challenging Needs also served as a guide to many Saskatchewan educators who were developing inclusive practices for educating students with an intellectual or multiple disability. The evolution of special education throughout the 1990s tended to follow this inclusive direction. Published research in the 1990s, while acknowledging the difficulties of such a multi-dimensional process, overwhelmingly supported inclusive education. Inclusion, with its inherent richness provided by a wider curriculum and an increased number of environments, social networks, natural life experiences and problem-solving opportunities, has been cited as the most rational and effective means of preparing students for life as an adult (Calculator and Jorgenson, 1994; Fisher, Sax and Pumpian, 1999; Stainback and Stainback, 1996; Wilson, 1999).

Purpose of the Revised Manual

This revised manual is provided as a resource to assist with educating students with intensive educational needs. Although the document focuses on meeting the needs of students with intellectual and multiple disabilities, the processes and practices described are appropriate for students with a broad range of needs. For example, the school structures and successful practices outlined in Chapter 4 set the stage for effective education for all students. Chapter 5 provides information on building collaborative school teams. The process for developing personal program plans outlined in Chapter 6 is appropriate for all students who require individualized programs. In addition, many of the instructional strategies, transition planning and positive behaviour programming can be applied for students with a range of learning and behavioural needs.

Throughout the last decade the scope of special education has significantly broadened. As a result there has been a much wider range of expectations placed on teachers. This document provides guidance with regard to some of the increased demands. Much of what was included in *Meeting Challenging Needs* remains relevant and has been retained. This revised manual includes:

- a philosophical statement and rationale;
- a description of the nature of intellectual disabilities and multiple disabilities;
- the relationship to the Core Curriculum and Common Essential Learnings;
- the effective practices as defined by research and experience; and
- strategies for program development and organization for instruction.

Although the entire process of effectively educating students with an intellectual or multiple disability is comprehensive and multidimensional, certain components tend to require greater attention and a broader knowledge base. Accordingly, these components have been developed in added depth within this document. These components include:

- collaboration and team building, including family involvement and working with a paraprofessional;
- assessment and the personal program plan;
- instruction;
- developing social skills and social networks;
- sexuality;

- the issue of abuse;
- developing communication skills;
- behaviour management and the concept of positive programming; and
- transition.

This revised manual has been designed to support the collaborative educational team in an inclusive environment. Please note, however, that the processes suggested can be used in a range of educational settings. It is acknowledged that the nature of educational planning is highly individual, involves family decision making and may require a range of instructional environments.

2

Philosophy

The Chapter at a Glance

Inclusive Education
  What is an Inclusive Environment?
Rationale: The Benefits of Inclusive Education
  Common Adult Outcomes
  Common Human Needs
  Language Development and Communicative Competence
  Social and Moral Development
  Functional Academic Development
  Benefit to Nondisabled Peers
  Avoiding the Effects of Exclusion
  Benefits to Teachers
  Benefits to Society

Inclusive Education

Basic to the education of students with intellectual disabilities or multiple disabilities is that this education should take place within an inclusive environment.

What is an Inclusive Environment?

Equitable

Inclusion is about membership and belonging to a community. It is to be an integral part of; to be embraced. Inclusion implies the existence of a unified education system encompassing all members equitably. It is a value system that supports membership and belonging in regular education settings for all students. It acknowledges an often extreme variance of individual abilities, interests and needs within the general student body. It also recognizes the need to support this diversity and that this support is acceptable. The guiding principles for supports to inclusion include:

- education of all students in age-appropriate regular education classrooms in neighbourhood schools;
- comprehensive assessment;
- individualized goal setting (inclusion is an *individual student focus* pursuit);
- collaborative team work;
- the family as integral members of the collaborative team;
- creation of supportive and caring educational environments;
- systematic arrangement of general educational settings, personal support and instructional adaptations;
- embedded (or blended) teaching of basic life skills (e.g., personal management, motor skills, social skills and communication skills) within general education activities;
- individualized instruction that is carefully planned to attend to the specific needs of the individual student, but does not interfere with the feeling of membership and belonging in the classroom;
- use of age-appropriate materials and instructional settings;
- trained and committed personnel;
- assistive technology;
- carefully planned transition; and
- accountability through continual evaluation and adjustment as necessary (Hilton and Ringlaben, 1998).

Inclusion exceeds the meagre idea of physical placement and assimilates the basic values of participation, friendship and interaction. Inclusion involves the basic practices of good teaching and good teaching, ultimately, is an accepting relationship between two people (Rainforth and York-Barr, 1997; York-Barr, Kronberg and Doyle, 1996).

A Focus on Ability

The realization that support for students with intellectual or multiple disabilities is both necessary and acceptable may require a shift in focus. The focus must move from a deficit orientation to an ability orientation; "from a 'you can't do it so you can't be part of it' to 'you can't do it now so I must find a way to help you be a part of it' " (Downing, 1996, p. 9). All students are perceived as capable of learning and achieving. All students are viewed as having strengths and weaknesses and will excel in some skills but not in others. Educating a student with an intellectual disability or multiple disability, therefore, is not a matter of developing deficit areas to a point of an inflexible normal standard. Ample opportunities to develop areas of strength should also be provided (Downing, 1996).

Meeting the needs of teachers

For teachers to effectively plan and support students with an intellectual or multiple disability, they require planning time, consultative services and professional training regarding educational diversity and multi-level learning. Teachers also require administrative support, support from other teachers and parental support. Successful experiences are more apt to generate positive attitudes of acceptance.

Rationale: The Benefits of Inclusive Education

The inclusive process is not without its innate challenges and problems. Effective inclusion requires a carefully planned and collaborative professional commitment. Properly orchestrated, however, its benefits are impressive. Current literature and research abounds with opinion and efficacy data that support the process. On the other hand, data that supports the benefits of a segregated approach is limited (Buysse, Wesley, Bryant and Gardner, 1999; Daniel and Vaughn, 1999; Hobbs and Westling, 1998; Ryndak, Morrison and Sommerstein, 1999). Students with an intellectual or multiple disability have benefited particularly with regard to common adult outcomes, language and communication, social and moral judgement and functional academics. Benefits to nondisabled peers, to teachers and to society in general have also been realized.

Common Adult Outcomes

It is reasonable to assume that if the desired outcome of educating students with an intellectual or multiple disability is to have them become functioning and contributing members of their community, then they should grow up as an included member of that community. The *Goals of Education in Saskatchewan* (1984) (see Figure 2.1) outline the proposed outcomes of an effective education and the essential domains for the development of the potential of all students in the province. A productive education can be measured in outcomes such as individual health, meaningful work, a comfortable and safe place to live and a personal fulfilling network of friends and family relationships. These outcomes are equally valid for all students, with or without disabilities.

The use of natural context is also an effective practice for educating students with intellectual or multiple disabilities. When skills are learned through every day life experience they are more likely to be retained. Moreover, it is easier to teach skills in their natural context than to teach under contrived conditions and plan for the transfer to 'real' situations. An inclusive education allows continual access to:

- the richness of real life experience;
- authentic problem solving opportunities;
- a wider curriculum;
- a naturally increased number of environments; and
- a naturally increased social network (Downing, 1996; Fisher, Sax and Pumpian, 1999; Ryndak et al., 1999).

Common Human Needs

All people share common human needs including:

- the need for a sense of belonging to a particular community or social network and to have a legitimate place of importance within general society;
- the need for a sense of power over one's destiny;
- the need for freedom, particularly the freedom to make personal life choices; and
- the need to have fun within a variety of contexts and circumstances of one's own choosing (Glasser, 1984).

Table 2.1. Goals of Education in Saskatchewan

Goals of education in Saskatchewan should direct efforts to develop the potential of all students in the province. Education should affirm the worth of each individual and lay the foundation for learning throughout life.

Students benefit from exposure to learning in a variety of situations. Attainment of the goals is a venture the school shares with the student, the family, the home, the church and the community. Although the degree of school responsibility will vary from community to community, the school has some responsibility for each goal.

A body of knowledge and a range of skills and attributes are necessary to function in a changing world. It is intended, then, that education will enable the Saskatchewan students to do the following to the best of their abilities.

Basic Skills

1. Read, write and compute
2. Acquire information and meaning through observing, listening, reading, and experiencing
3. Process information through intellectual and technological means
4. Solve problems by applying basic principles and processes of the sciences, arts, and humanities
5. Communicate ideas through written and spoken language, mathematical symbols, and aesthetic expression

Life-Long Learning

1. Seek and value experiences
2. Act as self-reliant learners
3. Base actions on the knowledge that it is necessary to learn throughout life

Understanding and Relating To Others

1. Act on the belief that each individual is worthwhile
2. Base actions on the recognition that people differ in their values, behaviours, and lifestyles
3. Interact and feel comfortable with others who are different in race, religion, status, or personal attributes
4. Develop a sense of responsibility toward others

Self Concept Development

1. Perceive themselves in a positive way
2. Appreciate their own abilities and limitations
3. Set and work toward personal goals
4. Assess praise and criticism realistically
5. Present themselves with confidence

Positive Life Style

1. Practice appropriate personal hygiene, engage in sufficient physical activity, and maintain a nutritionally balanced diet
2. Avoid harmful use of alcohol and other drugs
3. Cultivate interests that may be the basis for personal development and leisure pursuits
4. Recognize the importance of productive activity
5. Display initiative and pursue tasks diligently
6. Maintain a safe an healthful community
7. Respect the importance of productive activity
8. Appreciate beauty in it's many natural and constructed forms
9. Express themselves creatively

Spiritual Development

1. Seek an understanding of the purpose and worth of humans
2. Develop a knowledge of God
3. Respect family, religion, and culture in a pluralistic society

Career and Consumer Decision

1. Develop an awareness of career opportunities
2. Develop interests and abilities in relation to vocational expectations
3. Adapt to shifts in employment patterns and technology
4. Make informed consumer decisions

Membership in Society

1. Assume responsibility for their own actions
2. Work with others to achieve individual and group goals
3. Participate in the democratic processes of government and perform the duties of citizenship
4. Respect the rights and property of others
5. Act with honesty, integrity, compassion, and fairness
6. Develop a sense of national pride and acknowledge the need for international understanding
7. Work toward greater social justice
8. Assume responsibility for dependent persons in a manner consistent with their needs
9. Respect law and authority
10. Exercise the right of dissent responsibility

Growing with Change

1. Work toward immediate and long term goals
2. Base actions on an understanding that change is a natural process in society
3. Select workable alternatives in response to changing conditions
4. Develop confidence in making decisions that involve risk

Language Development and Communicative Competence

"Communication is a fundamental component of the quality of life and interaction among people. It is an essential ingredient in the development of friendships and meaningful interactions between students with and without disabilities" (Fisher, Sax and Pumpian, 1999, p. 38). Inclusive situations can provide:

- an increased possibility for engaging in social and cooperative activities and subsequent opportunity to use language meaningfully;
- a richness of typical language modelling over the long term; that is, language being used in its common style within the local community; and
- an increased potential for peer support and natural motivation to communicate (Johnson, Bullock and Ashton-Shaeffer, 1997; Stainback and Stainback, 1996).

Social and Moral Development

The development of social competence requires long term practice within *real life* contexts. A similar statement can be made regarding the ability to make effective moral decisions. An inclusive educational environment can provide the frequency of contact necessary for modelling and durable long term interaction. The potential for routine peer interaction and support, friendship, social acceptance and membership are maximized due to a wider social network (Kennedy, Shukla and Frywell, 1997; Stainback and Stainback, 1996).

"Adapting an inclusive approach toward general education participation is a defensible and substantiated practice for improving a student's social life" (Kennedy, Shukla, and Fryxell, 1997, p. 44). An essential condition, however, is that the process is carefully planned, based on written personal program plan goals and systematically conducted through a collaborative professional effort.

Functional Academic Development

Given proper support and organization, substantial gains in functional academic development can be achieved within inclusive settings. Learning takes place within contexts that promote the integrated use of a variety of skills, and involves the socialization and sharing of learned concepts. As a result, the learning tends to be more long term and durable in nature. Furthermore, the need to plan for generalization of skills is often circumvented through learning in natural contexts (Downing, 1996, Fisher et al., 1998).

Benefits to Nondisabled Peers

All students can benefit from the inclusive process. All students are given the opportunity to learn distinctive skills that could not be attained in any other context. Some of these benefits include:

- more effective instruction because of the increased number of educators in the classroom;
- the opportunity to learn many new life skills through interaction, cooperation and assistance with students with intellectual or multiple disabilities;
- acquiring positive attitudes toward disabilities, stemming from appropriate guidance from adults;
- decreased stereotyping of disabilities and more acceptance of each individual as someone with specific strengths and needs; and
- development of an appreciation for diversity within society (Seigal-Causey, McMorris, McGowen and Sadi-Buss, 1998; Stainback, Stainback and Stefanich, 1996).

Avoiding the Effects of Exclusion

Without inclusion, nondisabled students may not have the same opportunities to develop an appreciation for diversity, cooperation and respect for differences. Moreover, without the regular contact and opportunity to learn about diversity, there is a greater risk for ill-informed stereotyping. For the student with an intellectual or multiple disability, feelings of inferiority, alienation and seriously affected motivation may result.

The stereotypic perceptions held by some adults and nondisabled peers are often the most significant handicap for people with disabilities. Fisher, Pumpian and Sax (1998) have outlined a five-dimensional model for understanding attitude and attitudinal change regarding individuals with disabilities.

- *Contact (Integration) vs. No Contact (Segregation)*

  An individual cannot have a true understanding of another individual without actively associating with that individual over a long term and in a variety of contexts.

- *Adequate Information vs. Misinformation or No Information*

  Extensive disability awareness campaigns carried out by school staffs have proven to be effective in developing understanding and promoting appreciation of diversity.

- *Peer Status vs. Subordinate Roles*

  It is important that students with a disability are advocated as equal and permanent members of the classroom rather than being viewed as having visitor status.

- *Training vs. Lack of Competence*

  It is often reported that students with an intellectual or multiple disability are rejected by their peers because of inappropriate social behaviour. An alternate explanation of this situation is the need to promote the student with the disability as capable of learning and to teach acceptable behaviour.

- *Functional Activities vs. Stereotypic Behaviours*

  It is noteworthy that positive attitudes toward students with disabilities are developed when they are observed partaking in activities that do not reinforce the notion of helplessness or pity. Frequent contact with students with disabilities who demonstrate success with functional activities in inclusive settings is necessary.

Benefits to Teachers

Teachers are in a position to benefit from inclusive education by improving their professional skills, particularly through the collaborative support that is necessary for effective inclusion. A stronger sense of empowerment can also result from participation in current developments in education. Inclusion also gives teachers the opportunity to model important behaviours and values, and to encourage the same (Siegal-Causey et al, 1998; Stainback and Stainback, 1996; Villa and Thousand, 1995).

Benefits to Society

All of society can benefit from inclusive practices. Inclusion represents an approval and an advancement of the social value of equity.

Inclusive education is an enlightenment. It illustrates that all persons are equally valued members of society and that whatever has to be done to include everyone is worthwhile. Moreover, as members of society come together to support inclusive situations, the collective power and benefits of interdependent cooperation are realized. An inclusive society is typically a united society, confident and strong (Fisher et al., 1998; O'Shea and O'Shea, 1998; Stainback et al., 1996).

Recommended Reading

Buysse, W., Wesley, P. W., Bryant, D., & Gardner, D. (1999). Quality of early childhood programs in inclusive and noninclusive settings. *Exceptional Children, 65*(3), 301-314.

Danforth, S., & Rhodes, W. C. (1997). Deconstructing disability: A philosophy for inclusion. *Remedial and Special Education, 18*(6), 357-366.

Downing, J. E. (1996). *Including students with severe and multiple disabilities in typical classrooms: Practical strategies for teachers.* Baltimore: Paul H. Brookes Publishing Co.

Doyle, M. B., York-Barr, J., & Kronberg, R. M. (1996). *Collaboration: Providing support in the classroom: Facilitator guide.* In J. York-Barr, M. A. Kronberg, & M. B. Doyle (Series Eds.), *Curriculum as everything students learn in school: Inclusive School communities. A staff development series for general and special educators.* Baltimore: Paul H. Brookes Publishing Co.

Fisher, D., Pumpian, I., & Sax, C. (1998). High school students attitudes about and recommendations for their peers with significant disabilities. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 272-282.

Gelfer, J. I., & Perkins, P. G. (1998). Portfolios: Focus on young children. *Teaching Exceptional Children. 31*(2), 44-47.

Hobbs, T., & Westling, D. L. (1998). Promoting successful inclusion through collaborative problem-solving. *Teaching Exceptional Children, 31*(1), 4-11.

Johnson, D. E., Bullock, C. C., & Ashton-Shaeffer, C. (1997). Families and leisure: A context for learning. *Teaching Exceptional Children, 30*(2), 30-35.

Kennedy, C. H., Shukla, S., & Fryxell, D. (1997). Comparing the effects of educational placement on the social relationships of intermediate school students with severe disabilities. *Exceptional Children, 64*(1), 31-48.

O'Shea, D. J., & O'Shea, L. J. (1998). Learning to include. *Teaching Exceptional Children, 31*(1), 40-49.

Rainforth, B., & York-Barr, J. (1997). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Saskatchewan Professional Development Unit, & Saskatchewan Instructional Development and Research Unit (1996). *Diversity in the classroom series. Number seven. Creating an inclusive classroom: Integrating students with special needs.* Saskatoon, SK: Author.

Siegel-Causey, E., McMorris, C., McGowen, S., & Sands-Buss, S. (1998). In junior high you take earth science. *Teaching Exceptional Children, 31*(1), 66-72.

Stainback, S., & Stainback, W. (1996). *Inclusion: A guide for educators.* Baltimore: Paul H. Brookes Publishing Co.

Zaino, D. (1999). Personal and professional evolutions about inclusive education. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 27-42). Baltimore: Paul H. Brookes Publishing Co.

3

The Nature of Intellectual and Multiple Disabilities

The Chapter at a Glance

Intellectual Disability

Multiple Disability

Commonly Identified Learning and Performance Characteristics

Common Etiologies

Intellectual Disability

The term *intellectual disability* refers to the level of cognitive functioning that is demonstrated by a particular student. It is the circumstance in which a student's cognitive functioning is impeded to the point of causing a significant disability in receiving information from his or her environment, then effectively processing, problem solving and adapting to this information. The result can be a general delay in development. The student's functional ability in the following areas may be markedly effected:

- language and communication;
- social interaction;
- self-direction; the taking charge of the events that affect one's life, the belief that such control is possible and self-advocacy;
- self-care;
- independent travel;
- learning; and
- eventual economic self-sufficiency.

An intellectual disability is a life long condition. The long-term impact, therefore, is a major consideration.

No two students with the same disability will be impacted in the same manner. It is important to recognize that students with intellectual disabilities span a wide range of abilities and have strengths and weaknesses. Most importantly, all students with an intellectual disability are capable of learning.

Multiple Disability

A multiple disability refers to a combination of two or more disabilities. Typically, a multiple disability involves a student having an intellectual disability in addition to one or more of the following; deaf or hard of hearing, visual disability, physical disability or a severe social or emotional disability.

Commonly Identified Learning and Performance Characteristics

Although all students with an intellectual or multiple disability are distinct, several common learning and performance characteristics have been identified. These characteristics should be addressed when planning individual programs and instruction.

- **The number of skills students can acquire**

  Students with an intellectual or multiple disability learn more slowly than most students. This characteristic results in fewer skills being acquired. Because fewer skills will be learned, teachers should ensure that the skills they teach are functional to the student's present and future environments.

- **The complexity of skills students can acquire**

  There are many complex skills that a student with an intellectual or multiple disability may not be able to acquire. However, there are some complex skills that will be learned but will take much time and effort. The importance of teaching functional skills for the student is again emphasized.

- **Number of instructional opportunities and the amount of time needed for students to acquire skills**

  Most students with an intellectual or multiple disability require several learning opportunities before a skill is acquired.

- **Forgetting and recoupment**

  Many students who have acquired a skill will show a decrease in the performance of that skill if they do not use it for a period of time. It will take most students with an intellectual or multiple disability more time and instruction to return to their former performance level than it would a nondisabled student.

- **Transfer and generalization**

  It cannot be assumed that a skill acquired in one environment will automatically be performed elsewhere. Most students with an intellectual or multiple disability have difficulty transferring or generalizing a skill from one context to another. They may require instruction in each of the environments where the skill may be used.

- **The ability to synthesize**

  Students with an intellectual or multiple disability have difficulty putting together (or synthesizing) skills learned in several contexts to use in a new context.

Common Etiologies

Intellectual disabilities and multiple disabilities can be caused by many different factors and circumstances at the prenatal, perinatal and postnatal stages. Snyder (1999) has indicated common etiologies at each of these stages (see Table 3.1).

Table 3.1. Prenatal, Perinatal and Postnatal Factors

Prenatal Factors

Prenatal refers to the time prior to birth during the gestation period. A developing fetus can be adversely affected in many ways. Examples are:

- genetics (e.g., Down's syndrome, Fragile X, Tay-Sachs disease, P.K.U., galactosemia, William's syndrome, muscular dystrophy);
- teratogen (e.g., alcohol, lead, mercury, radiation);
- infections (e.g., viral and bacterial, rubella, syphilis, herpes, toxoplasmosis, AIDS);
- nutritional and metabolic (e.g., iron deficiency, general or specific dietary deficiency, diabetes, maternal P.K.U.);
- accident or injury; and
- unknown prenatal factors.

Perinatal Factors

Perinatal refers to the time during child birth. As a child is being born she/he is also open to adverse risk from many sources. Examples are:

- premature labor and delivery;
- prolonged labor and delivery;
- placenta previa;
- multiple pregnancy;
- prolonged cord; and
- high risk pregnancy.

Postnatal Factors

Postnatal refers to the time after a child is born. At any point in any person's life an event with the potential to cause an intellectual or multiple disability could occur. Children are more at risk, however. Examples are:

- infections (e.g., meningitis, bacterial, viral, tuberculosis, encephalitis, viral, herpes, mumps, measles);
- toxins (e.g., lead, mercury, pesticides, chemicals, vast unknown possibilities);
- accident-injury (e.g., head injury, near drowning, asphyxia, child abuse, shaken baby syndrome);
- malnutrition; and
- social and emotional factors (e.g., high risk infants in a high risk home, deprivation, neglect).

Recommended Reading

British Columbia Ministry of Education: Special Education. *Students with intellectual disabilities: A resource guide for teachers*. Retreived July 17, 2001, from http://www.bced.gov.ca/specialed.

Calculator, S. N. (1994). Designing and implementing communicative assessments in inclusive settings. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 113-182). San Diego, CA: Singular Publishing.

Downing, J. E. (1996). *Including students with severe and multiple disabilities in typical classrooms: Practical strategies for teachers*. Baltimore: Paul H. Brookes Publishing Co.

Grenot-Scheyer, M., Jubala, K. A., Bishop, K. D., & Coots, J. J. (1996). *The inclusive school: Professional's guide*. Westminister, CA: Teacher Created Materials.

Hoskins, B. (1996). *Developing inclusive schools: A guide*. Bloomington, IN: CASE Research Committee

Jorgensen, C. M. (1994). Developing individualized inclusive educational programs. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 27-74). San Diego, CA: Singular Publishing Group.

Macfarlane, C. E. (1998). Assessment: The key to appropriate curriculum and instruction. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 35-60). Austin, TX: PRO-ED, Inc.

Macfarlane, C. E. (1998). Data-based measurement and evaluation. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 239-254). Austin, TX: PRO-ED, Inc.

Rainforth, B., & York-Barr, J. (1997). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Salend, S.J. (1996). Using portfolios to assess student performance. *Teaching Exceptional Children, 28*(2), 36-43.

Wesson, C. L., & King, R. P. (1996). Portfolio assessment and special education students. *Teaching Exceptional Children, 28*(2), 44-49.

Effective Practices

The Chapter at a Glance

SchoolStructures: The Critical Elements of an Inclusive School

- A Common Philosophy
- Strong Visionary Leadership
- Family Involvement
- Collaborative Teamwork
- Community Building
- A Variety of Support Networks
- Deliberate Processes to Ensure Accountability
- Effective Teaching Practices
- Celebrating Successes and Learning from Challenges
- Knowledge of the Change Process
- Meeting the Needs of Classroom Teachers
- Disability Awareness Programs
- The Importance of Attitude
- Awareness of One's Individual Responsibility to Support Inclusion

Instructional Factors: Recognized Successful Practices

- Age Appropriate Placement in Neighbourhood Schools
- Planned Social Interaction
- Functional Curricula
- Systematic Instruction
- Community-Based Instruction
- Integrated Service Delivery
- Transition Planning
- Systematic Program Evaluation
- Peer Involvement
- Trained Personnel
- Progressive Materials
- Developing Independence, Choice Making, Self-Determination and Self-Advocacy
- Efficient use of Paraprofessional Staff
- Use of Assistive Technology

Educating students with an intellectual or multiple disability requires a committed and well planned effort. The entire process, particularly in inclusive situations, is multidimensional. A brief overview of what are considered the effective, and therefore recommended, practices for educating students with an intellectual or multiple disability is presented below. Several of these practices will be explained in greater detail in other parts of the manual.

School Structures: Critical Elements of an Effective School

A truly inclusive school does not happen without careful planning. The placement of a student with an intellectual or multiple disability into a regular classroom in a neighbourhood school is only a beginning. Consideration must be given to the following elements.

A Common Philosophy

It is suggested that each school division and each individual school define its educational vision through an articulated *mission statement*. Each school's vision should complement the particular social and economic setting of the school community and reflect democratic and equal opportunities for all.

Strong, Visionary Leadership

It is important to have leadership commitment at the school division and individual school level. Effective school leadership can be demonstrated through:

- supporting new learning practices;
- developing meaningful connections with all students;
- developing a school-wide approach to school discipline;
- developing the school as an inviting, supportive, caring, secure and safe community;
- promoting wellness among staff and students;
- recognizing the demands involved; and
- valuing diversity.

A collaborative type of leadership is preferred over an authoritarian, boss management style.

Family Involvement

The benefits of family involvement have been well documented. Schools that work closely with families tend to have higher morale among staff and develop higher achievement and more positive attitudes and behaviours among students. Moreover, these schools are seen by the community at large to be more progressive and to do a better job than schools that do not work well with families.

Families require emotional support from the school. Families also need to feel they are important members of the decision making team. It is the family that knows the student better than anyone else. It is important, therefore, that their desires, needs and expectations are taken seriously by the teaching staff. An active (written or verbal) participation in programming and frequent communication between home and school is critical.

Collaborative Team Work

A significant part of programming for a student with an intellectual or multiple disability involves working with families and support services. It is unreasonable to expect one person, particularly the classroom teacher, to be solely responsible for all programming needs. Collaborative planning, a commitment to team work and effective coordination of the integrated service delivery are fundamental. With collaborative planning a wide range of expertise can be shared and implemented. It is essential, however, that all members of the instructional team be aware of and committed to fulfilling their respective roles and responsibilities.

Community Building

An inclusive school should extend beyond the actual physical campus to embrace its larger community. An attempt should be made to make each community member feel connected to the school. Such a feeling begins by establishing an open and welcoming atmosphere within the school building. Efforts are made to extend the school's presence into the community at large. Examples of this extension may include:

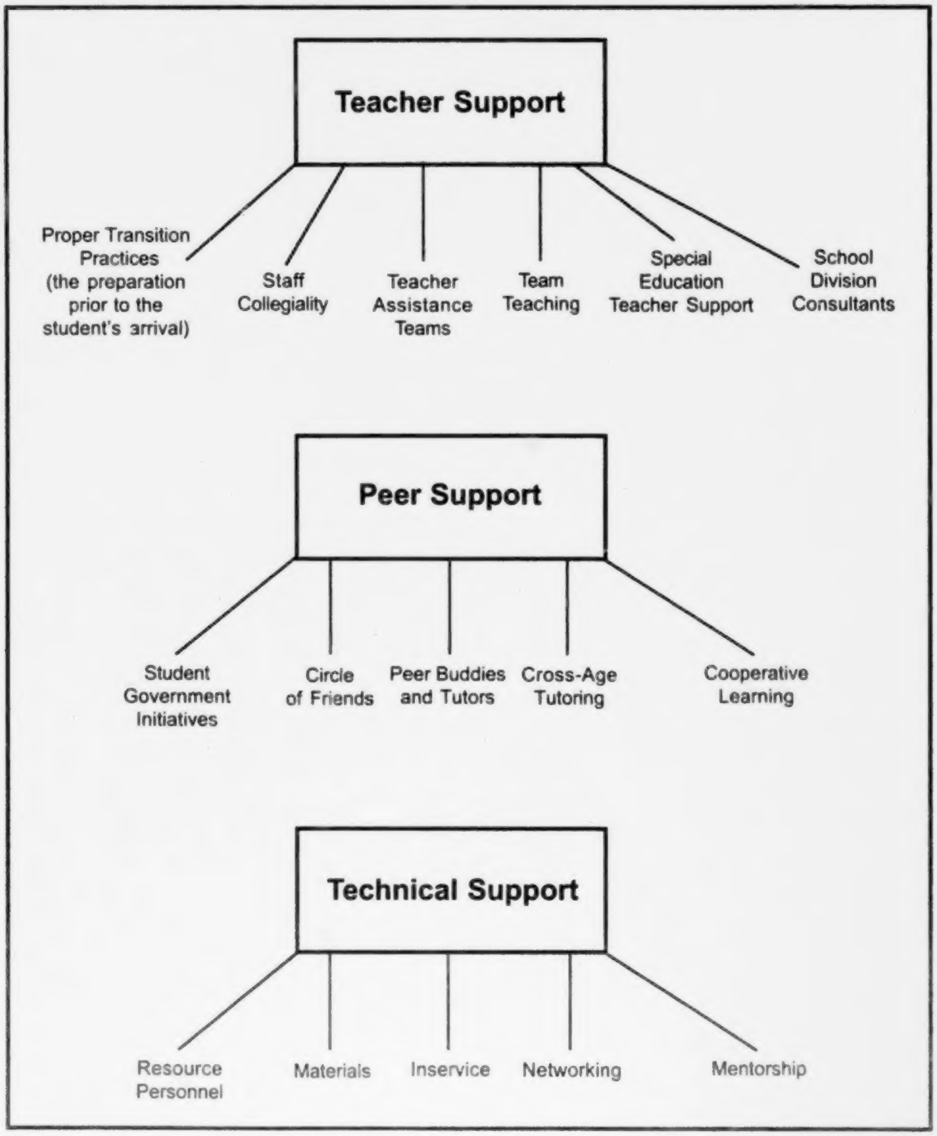
- invitations to school events;
- partnerships with the local business community;
- invitations to community members to work as volunteers within classrooms; and
- student outreach programs in which students volunteer to assist in various capacities throughout the community.

Such activities have been very common in Saskatchewan schools for a number of years. It is important, however, to acknowledge the significance they hold in the overall composition of an inclusive school and to realize the influence of understanding, trust and confidence among community members.

A Variety of Support Networks

The essence of inclusion is supportive collaboration. Support networks should be developed for both teachers and students.

Figure 4.1. Support Networks



Deliberate Processes to Ensure Accountability

Effective education for students cannot be left to chance; rather, all processes have to be deliberately planned. Examples of actual processes include:

- **effective use of personal program plans**. The personal program plans should be based on an authentic assessment and represent functional curricula for the student. The plan should also be referred to on a frequent basis and used in assessment of student progress.
- **proactive planning**. This includes actively anticipating possible barriers, and problem solving solutions in a creative and collaborative manner.
- **effective meetings**. Teaching is a very busy profession. There is really no time to waste. Moreover, no one dimension of the teaching task can be deemed more important than any other. It is pivotal, therefore, that the collaborative meetings are well planned and effectively chaired toward constructive decision making.
- **maintained flexibility.** In many ways inclusion represents continual evaluation and adaptive problem solving. To maintain a truly child-centred program it is necessary to assess the changing development and needs of the student and flexibly respond to these changes. Creative problem-solving structures, especially for behaviour management, should be maintained.

Effective Teaching Practices

A wide assortment of instructional processes that complement and/or facilitate diverse learning have been developed. Educational teams should be aware of current recommended practice and be able to choose methods that are appropriate to specific situations.

Celebrating Successes and Learning from Challenges

It is important that the educational team have fun together and that they celebrate their achievements. Simple things, like sharing coffee and cake when "little Johnny" finally zipped his coat independently, create joy and togetherness.

If strategies that the team have planned turn out to be ineffective, the team should not despair in failure. Inclusion is an ongoing problem-solving process and mistakes will surely be made along the way. Very effective methods can evolve through analyzing mistakes, learning from them and trying not to repeat them.

Knowledge of the Change Process

The strategies central to effective change are:

- collaboration among peers;
- leadership through modelling the beliefs and practices;
- effective staff development; and
- effective time management.

Meeting the Needs of Teachers

As stated previously, it is unreasonable to expect one teacher to be solely responsible for meeting the needs of a student with an intellectual or multiple disability in an inclusive situation. Teachers require preparation prior to receiving the student and ongoing support once the student has arrived.

Teacher preparation should be an integral part of the student's transition process. The premise for preparation is to make the teacher feel not only accepting but competent about the job at hand. A good begining is to emphasize that the student is much more same than different and that many techniques used in typical instructional situations will be appropriate. Other points for preparation are suggested in Tables 4.2 - 4.4.

Table 4.2. General Information

General Information

Information should be given to the teacher regarding:

- student strengths;
- the student's current levels of functioning (social, conceptual, academic and behavioural);
- the student's specific syndrome or condition;
- the expectations regarding student learning (the student's personal program plan);
- specific instructional techniques and the general education strategies that will be effective;
- adapting instruction and accommodating diverse learning styles;
- the composition of the school-based team, and the roles and responsibilities for each team member (the concept of shared responsibility);
- assistance within the classroom (the possibility of a paraprofessional if necessary);
- behaviour management techniques;
- assessment issues and strategies;

(continued)

Table 4.2 (continued)

- **techniques for promoting and managing student social interaction;**
- **strategies for working with families;**
- **the importance of transition and strategies for ensuring that a proper transition takes place;**
- **training for managing specific health care issues (if required);**
- **the other support personnel who will be available. The teacher must receive assurance that he or she will not be alone in this endeavour and that there will be consultative services available; and**
- **an awareness that the essential qualities and values of an effective teacher are open mindedness, a positive attitude, knowledge, sensitivity, understanding and viewing all students as individuals capable of learning.**

Table 4.3. Teacher-Intiated Preparation

Teacher-Initiated Preparation

Additional ways in which the teacher may increase his/her preparation are:

- observing the student in the current environment;
- interacting with the student and building rapport;
- collaborating with the special education teacher and others regarding instructional adaptations and other methods for accommodating learning diversity;
- developing acceptance within the student's prospective nondisabled peers; and
- discussing ways of preplanning the inclusive process with the student's prospective peers.

Table 4.4. On-going Support

On-going Support

It is also important that the teacher's support be continual. On-going support for teachers may include:

- opportunities for continued professional development;
- specific training in collaboration and conflict management techniques;
- training and encouragement regarding stress management and prevention of burnout, such as:
    - cognitive coping skills (maintaining positive thoughts and beliefs);
    - creative problem solving;
    - managing the physiological response;
    - reducing isolation through staff collegiality and collaboration;
    - realistic expectations regarding the paper work involved;
    - maintaining a balanced life style;

(continued)

Table 4.4 (continued)

- provision of planning time;
- administrative support and recognition for work well done;
- parent support;
- sufficient resources;
- collegial interaction among staff;
- opportunity for mentorship;
- autonomy to make decisions;
- teacher assistance teams;
- team teaching;
- special education teacher support;
- school division consultants;
- technological support; particularly the use of the internet as a knowledge source and problem solving support; and
- assistance with developing community acceptance and acceptance by nondisabled peers.

Disability Awareness Programs

Fear of the unknown can lead to lack of acceptance. Students with an intellectual or multiple disability are sometimes left out or rejected simply because those without disability are not used to associating with them and are uncomfortable in their presence. Disability awareness programs can be very effective in reducing this alienation.

A successfully run disability awareness program can have the following influences:

> "Promote empathy and understanding for students with disabilities.
>
> Increase contact between students with and without disabilities.
> Reduce staring, teasing and discomfort around students with disabilities.
>
> Include students with disabilities in general education and community environments.
>
> Foster positive alliances and friendships between students with and without disabilities.
>
> Provide leadership opportunities for students with and without disabilities" (Denti and Meyers, 1997, p. 53).

The Importance of a Positive Attitude

Perhaps the most important factor in the inclusion of students with an intellectual or multiple disability is the attitude toward them demonstrated by nondisabled peers and adults. Indeed, attitude can be, and has been, the most troublesome barrier encountered. Often this negative exclusionary attitude extends from good intentions; from an "it's best for them" philosophy. This philosophy is often based on opinion, and not on research. Unfortunately it is an opinion commonly expressed from all manner of society; teachers (regular classroom and special education), students, employers, co-workers, health care and media.

It seems that most attitudes are determined by knowledge and experience or, conversely, a lack of knowledge or experience. It is critical, therefore, that schools provide an awareness and portrayal of students with an intellectual or multiple disability as individuals with strengths and weaknesses, capable of contribution and worthy of equal membership. It is also important that schools provide successful experiences with and for students with an intellectual or multiple disability, and that these experiences are extended into society at large.

Awareness of One's Individual Responsibility to Support Inclusion

Within the collaborative team, each member has to be aware of the need for individual commitment and fulfilling their prospective roles and responsibilities.

It is the principal who holds the determining role and subsequent influence for promoting an inclusive environment within a school. It is important that principals are given guidance for developing inclusion that is consistent within the school division. This guidance includes a clear definition of inclusion, the organizational structures involved and the skills and practices needed.

It is also important that teachers demonstrate a commitment to the ideals of inclusion, based on an awareness of the philosophical and research basis. It is also significant that classroom teachers accept responsibility as the primary educator for all students in the classroom.

The special education teacher's support for the classroom teacher is also critical. Special education teachers can offer support such as developing and writing personal program plans, sharing expertise, assisting with adaptations to students' programs, providing direct instruction through individual tutorial or small group sessions, team teaching, coordinating work education, guiding and monitoring paraprofessional support and liaison with ancillary support (e.g., health care).

Paraprofessionals can offer support such as reinforcement of skills, developing adaptations (under the direction of the teachers), assisting with behaviour management, assisting with personal care of the student, assisting with community-based education and sharing expertise through collaboration.

Instructional Factors: Recognized Effective Practices

Research and documented reports of success have indicated that the instructional factors described below are characteristic of successful programs. Calculator and Jorgensen (1994), Downing (1996), Hilton and Ringlaben (1998), Orelove and Sobsey (1996), Rainforth and York-Barr (1997), Ryndak and Alper (1996), Stainback and Stainback (1996) and Villa and Thousand (1995) have been used as the principal sources of information for establishing this list of practices.

Age-Appropriate Placement in Neighbourhood Schools

Students are placed in regular classrooms in their local neighbourhood school. The actual grade placement corresponds appropriately with the students chronological age, plus or minus two years.

Planned Social Interaction

Within the classroom, the student with an intellectual or multiple disability should be supported in participating with her/his peers and with establishing a sense of belonging and social membership. In addition, a number of other age-appropriate school and community environments are identified for present and/or future access. A plan for participation in these environments is then addressed. Consideration should be given to support concepts such as:

- circle of friends;
- peer buddies;
- peer tutors;
- cross age tutoring; and
- cooperative learning.

Functional Curricula

A functional curriculum is specific to an individual student and reflects individual needs. A functional curriculum is also futuristic and purports outcome-based education. The curriculum takes into account the individual's cultural background, community resources and family values, and is designed to achieve goals that are seen as present and future priorities within these contexts. The curriculum reflects the demands of the student's life and focuses on activities that are of immediate usefulness to the student and/or will be needed in future domestic, community, work, academic and social settings.

Systematic Instruction

Systematic instruction implies a well planned and diverse approach. It involves the use of functional and age-appropriate materials and settings and suggests the use of a variety of approaches.

Examples of these approaches are listed in Table 4.5. Each of these examples will be explained in greater detail in *Chapter 7: Systematic Instruction.*

Table 4.5. Systematic Instruction

Systematic Instruction

- whole class instruction specifically designed to include students with diverse needs;
- small group instruction;
- one-to-one instruction;
- maintenance and generalization of skills;
- functional task analysis;
- prompting strategies and reinforcement;
- the embedding (or blending) of social, motor, communication and life skills into relevant activities (an integrative approach);
- adaptations to regular classroom instruction;
- a holistic approach to instruction;
- integrated themes (units) of study;
- constructivist learning - instruction is facilitated in a manner that allows students to construct their own learning;
- multiple intelligence learning - instruction that allows students to experience and develop a variety of strength areas;
- teaching acceptance and appreciation of differences, responsibility and peace making;
- use of heterogeneous grouping, which acts to facilitate peer-mediated and cooperative learning structures; and
- use of student seminars and advisory groups which can add effective ideas to educational planning.

Systematic instruction is an integral part of a school culture that welcomes, appreciates and accommodates diversity. Various types of adaptations, modifications, grade structures, student groupings and curriculum organization are explored. Systematic instruction also involves *looking inside* the current practices to critically examine instructional strengths and weaknesses and to discover any potential barriers to effective teaching. Systematic instruction also conveys *looking outside* currently used methods to see if there are any social, cultural or educational trends that may be of benefit. Furthermore, systematic instruction is collaborative in nature; it monitors change and student progress, puts action plans into writing and involves a continual evaluation and adjustment.

Community-Based Instruction

Community-based education emphasizes context-specific instruction and the importance of ensured generalization of skills. The premise of this approach is that all students need an education that prepares them to live and work as part of an adult community; all students need to achieve functional outcomes. Students with an intellectual or multiple disability may easily learn an activity or skill within a classroom but have difficulty in performing the same activity outside the classroom in a functional context. To ensure that students are equipped for life outside the classroom and that skills can adequately be performed in real life situations, some of these skills have to be taught in the actual environment where they will be needed. The community can also be used concurrently with the classroom to check for the application of skills learned in classroom settings.

Integrated Service Delivery

All professional input complements the one unified program.

Many students with an intellectual disability or multiple disability require related services to benefit from their educational programs. Examples of related services may include physical therapy, occupational therapy, speech and language services, positive behaviour programming, psychological services, music therapy, program consultation, nursing care, paraprofessional support and many others. With the possibility of many different disciplines being involved, it is important that the services are properly coordinated and integrated. All supports have to effectively integrate to form one functional and constructive personal program plan.

The process is cooperative, collaborative and transdisciplinary in nature. Typically it is the classroom teacher, special education teacher, parents and teacher assistant that form the core educational team. The coordination (or case management) of the school program is best done by the teachers at the school, simply because they have the most frequent contact with the student. Other professionals may provide direct services and/or collaborate with the core team by suggesting methods and materials and monitoring progress. The actual program, however, is administered by the core team. The process of an ancillary support professional (e.g., a program consultant or a physical therapist) providing information to the educational team, who in turn use this information to instruct the student, has been termed *role release.*

Transition Planning

Transition planning is the planning that precedes and follows movement between programs. Major transitions occur as the student moves from:

- a home-based program to a preschool program;
- a preschool program to an elementary school program;
- an elementary school program to a high school program; or
- a high school program to a post-secondary or vocational situation.

A major transition may also occur if a family moves to another school or community. A more minor but still very important transition occurs when a student moves from one grade to the next while remaining in the same school.

The planning process facilitates the transfer from the known to the unknown through the development of a transition plan. The transition plan establishes time lines and identifies the participants and the expectations of the next environment. Transition planning is crucial to the success of personal programs in general. It requires well coordinated communication between the student's family and the support personnel.

Systematic Program Evaluation

The personal program plan (PPP) is formed through comprehensive assessment, and represents functional curricula for the student. The PPP is also referred to on a frequent basis and used as means for assessing student progress.

Systematic program evaluation is the analysis of the student's personal program in terms of its quality, the number of successful practices it demonstrates and its effectiveness in meeting stated goals. The PPP has to be working for the student. If it is not working then it is altered in a manner that will better achieve the desired outcomes.

Peer Involvement

Involving nondisabled peers in educational programming can be a very effective practice. Cooperative learning, peer mediated instruction and multi-age grouping have proven to be academically productive and naturally supportive techniques. Peers can also be constructive role models and incidental teachers of social and communication skills. They are informed members of planning and problem-solving teams as they know the *natural way that kids do things*. Disability awareness programs can serve to make peer involvement optimally effective.

Trained Personnel

It is important that special education teachers and professional support staff who are responsible for assessment, program planning and program delivery be competent in their task. Appropriate training, therefore, is an issue. Saskatchewan Education has outlined the minimum qualifications that are considered acceptable for a special educator in the position of Resource Teacher, Learning Assistance Teacher and Special Class Teacher. In addition to these formal qualifications, members of the instructional team should be aware of and competent in the skills of collaboration, clear communication and team building.

Ongoing professional development may include professional reading, attendance at workshops and conferences, observing successful programs and using the internet. Collaboration among staff is also a catalyst for professional development.

Progressive Materials

It is important that educational teams be aware of currently recommended practice as identified by research, and use recent resources including technology and resource people.

It is also important that the resources commonly found in the school (e.g., library materials) portray positive images of persons with disabilities.

Developing Independence, Choice Making, Self-Determination and Self-Advocacy

Independence, self-determination, choice making and self-advocacy are invariably intertwined. The importance of self-determination lies in its causal link with quality of life.

Self-determination has been defined as, "acting as the primary causal agent in one's life and making choices and decisions regarding one's quality of life free from undue external influence or interference" (Wehmeyer and Schwartz, 1997, p. 246).

Within this definition, quality of life is directly associated with the degree of control one has over one's future. If self-determination is a projected outcome for a student, it is necessary then, to nurture a sense of independence within the student and to promote the ability to make choices. Moreover, all of these skills must be systematically taught.

Efficient Use of Paraprofessional Staff

Paraprofessionals can be productive team members and greatly assist with student progress and independence. Conversely, inappropriate roles and responsibilities for paraprofessionals can be a source of conflict within a team, impede student progress and contribute to student dependency. To be effective, the paraprofessional's role within the collaborative educational team requires clear articulation, professional preparation at the school division and individual school level, careful and progressive leadership and ongoing nurturing of positive working relationships.

Use of Assistive Technology

The rapid advance in technological innovation can be of great assistance to some students. Potential benefits include independent task completion, access to a choice of environments, communication, socialization, employment opportunities and a greater degree of self-determination.

Recommended Reading

Barnett, C., & Monda-Amaya, L. (1998). Principals' knowledge of and attitudes toward inclusion. *Remedial and Special Education, 19*(3), 181-192.

Chalmers, L., & Faliede, T. (1996). Successful inclusion of students with mild/ moderate disabilities in rural school settings. *Teaching Exceptional Children, 29*(1), 22-26.

Cooley, E., & Yovanoff, P. (1996). Supporting professionals-at-risk: Evaluating interventions to reduce burnout and improve retention of special educators. *Exceptional Children, 62*(4), 336-355.

Denti, L. G., & Meyers, S. B. (1997). Successful ability awareness programs: The key to planning. *Teaching Exceptional Children, 29*(4), 52-53.

Federico, M. A., Herrold, W. G., & Venn, J. (1999). Helpful tips for successful inclusion. *Teaching Exceptional Children, 32*(1), 76-82.

Hobbs, T., & Westling, D. L. (1998). Promoting successful inclusion through collaborative problem-solving. *Teaching Exceptional Children, 31*(1), 4-11.

Hutinger, P., Johanson, J., & Stoneburner, R. (1996). Assistive technology applications in educational programs of children with multiple disabilities: A case study report on the state of practice. *Journal of Special Education Technology, 13*, 16-35.

King-Sears, M. E., & Cummings, C. S . (1996). Inclusive practices of classroom teachers. *Remedial and Special Education, 17*(4), 217-225.

Kling, B. (1997). Empowering teachers to use successful strategies. *Teaching Exceptional Children, 30*(2), 20-25.

Lahm, E. A., & Nickels, B. L. (1999). What do you know? Assistive technology competencies for special educators. *Teaching Exceptional Children, 32*(1), 56-64.

Miller, M. D., Brownell, M. T., & Smith, S. W. (1999). Factors that predict teachers staying in, leaving, or transferring from the special education classroom. *Exceptional Children, 65*(2), 201-218.

O'Shea, D. J., & O'Shea, L. J. (1998). Learning to include. *Teaching Exceptional Children, 31*(1), 40-49.

Perner, D. E., & Porter, G. L. (1998). Creating inclusive schools: Changing roles and strategies. In A. Hilton & R. Ringlaben (Eds.), *Best and promisinq practices in developmental disabilities* (pp. 317-330). Austin, TX: PRO-ED, Inc.

Pratt, B. (1999). Making it work: Using technology in a classroom for young children with multiple disabilities. *Learning and Leading with Technology, 26*(8), 28-31.

Ringlaben, R., & Dahmen-Jones, D. (1998). Attitudes about individuals with developmental disabilites. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 295-306). Austin, TX: PRO-ED, Inc.

Roach, V. (1999). Reflecting on the least restrictive environment policy. Curriculum, instruction, placement: Three legs of the achievement stool. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 145-156). Baltimore: Paul H. Brookes Publishing Co.

Sage, D. D. (1997). *Inclusion in secondary schools: Bold initiatives challenging change.* Port Chester, NY: National Professional Resources, Inc.

Sax, C., Pumpian, I., & Fisher, D. (1999). We didn't always learn what we were taught: Inclusion does work. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 5-26). Baltimore, MD: Paul H. Brookes Publishing Co.

Schattman, R., & Dennis, R. E. (1998). Administration in inclusive schools. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 85-112). Baltimore, MD: Paul H. Brookes Publishing Co.

Schlichter, C. L., Larkin, M. J., Casareno, A. B., Ellis, E., Gregg, M., Mayfield, P., & Rountree, B. S. (1997). Partners in enrichment: Preparing teachers for multiple ability classrooms. *Teaching Exceptional Children, 29*(4), 4-9.

Stainback, S., & Stainback, W. (1996). *Inclusion: A guide for educators.* Baltimore, MD: Paul H. Brookes Publishing Co.

Thousand, J. S., & Villa, R. A. (1995). Managing complex change toward inclusive schooling. In R. A. Villa & J. S. Thousand (Eds.), *Creating an inclusive school* (pp. 51-87). Alexandria, VA: Association for Supervision and Curriculum Development.

Wilson, B. A. (1999). Inclusion: Empirical guidelines and unanswered questions. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(2), 119-133.

York-Barr, J. Kronberg, M. A., Doyle, M. B. (Series Eds.). (1996). *Curriculum as everything students learn in school: Inclusive communities. A staff development series for special education.* Baltimore: Paul H. Brookes Publishing Co.

5

Collaboration and Team Building

The Chapter at a Glance

The Collaborative Team

Assumptions of the Collaborative Approach

Rationale for Collaboration

Developing Effective Collaboration Skills

- Facilitating Effective Meetings
- Exchanging Information Skills
- Solving Problems and Addressing Issues
- Making Decisions by Consensus
- Conflict Resolution

School Leadership: Promoting Collaboration

Team membership

- Awareness of Individual Responsibility to Support Inclusion

Family involvement: Building the Partnership

- Critical Factors Influencing Family Functioning
- Strategies for Family Partnerships

Working with Paraprofessionals

- Compentencies
- The Working Relationship

Addressing Cultural Diversity Among Members

The Stages of Team Development

Steps to a Quality Team Approach

The Collaborative Team

The most central element to successful programming for students with an intellectual or multiple disability is collaborative team work. It is a catalyst for inclusion, teacher empowerment and developing individualized instruction. The collaborative process provides the opportunity to merge unique skills, foster positive interdependence, develop creative problem solving and enhance accountability for individual responsibilities.

The complexity and diversity that exists within today's average classroom suggests that it would be extremely difficult for a teacher to independently meet the challenges presented. Working cooperatively with a variety of support networks is necessary.

Definition

Essentially, collaboration is shared labour. It is two or more individuals coming together to cooperatively problem solve and action plan. A very strong emphasis is placed on cooperation, clear communication, joint decision making and consensus. It is a simple enough concept, but it can become very complex when the individuals involved represent a variety of different disciplines, and when the opinions of each person must be coordinated into one effective program for a particular student. Such is usually the circumstance when programming for a student with an intellectual disability or multiple disability.

Criteria

The collaborative teamwork necessary for educating students with an intellectual or multiple disability is a combination of the *integrated* and *transdisciplinary* instructional approaches.

Integrated instruction is when functional motor, communication, social competence and other skills are learned as part of natural routines in regularly scheduled school and community environments.

Transdisciplinary instruction occurs when information and skills among team members are shared across traditional discipline domains (e.g., the occupational therapist sharing with the teacher). This sharing results in the creation of one program that all team members endorse. This sharing also implies that the team members are working in support of each other and enables the team to develop an integrated approach to instruction (Rainforth and York-Barr, 1997).

From these two approaches, the defining characteristics of collaborative teamwork necessary for educating students with intellectual or multiple disabilities evolve.

The educational team

An educational team exists when two or more teachers, family or support personnel organize themselves to regularly plan, instruct and evaluate programs for a student or group of students over an extended period of time. As a member of an educational team, one has to unconditionally accept the responsibility of a constructive team member. It is also necessary to be aware of, and accept the value of, positive professional interdependence. Although not always an easy task, a commitment to conscientious team building must be undertaken.

The concept of *team* emphasizes the necessity for each member to share expertise, responsibility for program development, provision of instruction and accountability for student progress.

The concept of *collaborative team* extends the above definition to include the following.

- The team's purpose is defined by the needs of the student.
- The team accepts the position that it will succeed or fail as a whole.
- The team members willingly practise the concept of *role release* by sharing knowledge about their area of expertise. In particular, knowledge is shared regarding meeting student needs in natural contexts; at school, home and in the community through naturally occurring activities.
- An emphasis is placed on the equality and the equal partnership of each team member.

The argument for effective teamwork is quite simple. At the centre of team building is the student and, ultimately, it is the student who benefits from effective teamwork. Conversely, it is the student who pays if teamwork falters or breaks down.

Assumptions of the Collaborative Team Approach: The Potential of all Children

Fundamental to effective collaborative team work are shared beliefs about the potential of all children and the type of instruction that best cultivates this potential. Ineffectual teamwork is often the result of members not having agreed on a common foundation. The assumptions of a collaborative teamwork approach to educating students with intellectual or multiple disability are as follows.

- All students are capable of learning if given appropriate support and sufficient opportunity.
- The purpose of education is for all students, regardless of ability, to participate in and contribute to typical family, school and community life.
- All students are educated in their neighbourhood school and an ecological curriculum design is required (refer to *Chapter 6: Developing Curriculum: The Personal Program Plan*).
- It is the educational team's responsibility to assist students in achieving desired educational outcomes.
- The collaborative team consists of those who are significantly related to the student's development: the student, peers, family, teachers, paraprofessionals and ancillary support personnel.
- Efficient cooperative teamwork requires positive social interdependence among team members. It is each team member's responsibility to contribute in a positive manner.
- Expertise is freely shared among team members in a transdisciplinary fashion.
- The PPP is developed collaboratively and reflects an integrative approach to instruction.
- The collaborative team remains flexible and open to innovation and change (Rainforth and York-Barr, 1997).

Rationale for Collaboration

There are many reasons why collaborative team work is viewed as a positive and necessary practice for the effective inclusion of students with an intellectual or multiple disability in typical educational settings.

- Collaboration is a safeguard against the dangers of isolation. A teacher who works independently risks the potential loneliness involved with limited access to new ideas and solutions, and lack of praise and recognition for success. On the other hand, collaboration tends to result in creative, caring and supportive school communities.

- Reflection on another person's point of view tends to enhance quality outcomes. In a collaborative situation there are benefits realized because of the wealth of skills, perspectives and knowledge that are available. The resulting problem solving and support for teachers and students can represent a tremendous progression in educational thinking and behaving.
- Collaboration presents a natural context for constructivist learning to take place. Members of the educational team are able to synthesize new ideas presented and assimilate the ideas into what they previously understood.
- Through collaboration the individual learning characteristics of students with intellectual or multiple disabilities are best discovered and best served. Collaboratively the educational team assesses the student's demonstrated strengths, needs and learning potential. With a detailed knowledge of the student's learning characteristics and the contexts in which instruction will take place, the team is in a better position to organize instruction across activities in natural contexts. This increases the number of instructional opportunities and subsequent rate of learning.
- Collaboration encourages the development of positive attitudes toward students with disabilities and inclusive educational practices.
- Collaboration deepens relationships with colleagues.
- Collaboration can benefit nondisabled peers in the classroom through improved supports and learning. Classmates benefit from additional contact time provided by the extra personnel in the room and from the improved instruction resulting from professional consultation.
- The student's family benefits from collaboration through sharing of information on instructional strategies and methods. These strategies and methods can be used in home and community situations, effectively extending learning opportunities and skill acquisition rate.
- Collaboration has long been a suggested *criterion of ultimate functioning* in educational philosophy. Over time, collaboration has remained a trusted and true *best practice* for enhancing teaching and learning environments.

Developing Effective Collaboration Skills

Collaboration is a learned ability. For some the ability comes easily, for others it requires great effort. However, given the commitment, opportunity and support, all people are capable of effective collaboration. Five essential skill areas have been identified as being indispensable to competent collaboration. These are: (a) facilitating effective meetings, (b) exchanging information and skills, (c) solving problems and addressing issues, (d) making decisions by consensus, and (e) conflict resolution (Rainforth and York-Barr, 1997).

Facilitating Effective Meetings

To conduct an effective meeting significant effort is necessary. Adhering to the following four points will greatly increase a meeting's potential for effectiveness.

1. Establish expectations and standards:
   - begin on time;
   - make the meetings a priority over other functions;
   - allow time to address all items sufficiently;
   - listen actively;
   - come prepared;
   - share leadership; and
   - maintain a student focus.

2. Prepare for team meetings:
   - jointly establish the time and location;
   - establish the agenda prior to the meeting;
   - think about assigning group roles such as:
     - facilitator,
     - recorder,
     - timekeeper,
     - process observer; and
   - consider bringing food and refreshments.

3. Conduct the team meeting systematically:
   - assign roles;
   - prioritize the agenda items and allot time accordingly;
   - create and distribute notes from the meeting or put notes on chart paper; and
   - leave sufficient time to process; that is, to reflect on how the team worked together.

4. Process and bring closure by asking:
   - What went well?
   - What made you uncomfortable?
   - What could be handled differently?
   - What was the overall tone? Why?
   - Acknowledge and celebrate improvements!

Exchanging Information and Skills: The Importance of Communication

Of all the competencies required for effective collaboration, perhaps the most essential is the ability to communicate clearly. Members of a typical educational team represent a variety of experiences and levels of specific expertise. Many are trained therapists or specialists in a particular discipline. Regardless of one's experience or expertise, it is important that all members treat each other as equals. All members should ensure that the information they present is clearly understood by everyone and free of jargon. Furthermore, those with specific expertise should be prepared to accept the principle of *role release* and provide knowledge to those who work most frequently with the student. Providing regular consultative visits to monitor progress and give constructive feedback would also be required.

The development of communication skills cannot be left to chance. These skills must be systematically promoted. Doyle, York-Barr, and Kronberg (1996) offer the following suggestions for effective communication.

1. Plan the topic for communication:
    - individual student programming needs;
    - curriculum planning;
    - instructional techniques;
    - role clarification and responsibilities; and
    - scheduling.

2. Plan ways to communicate:
    - Written Communication:
        - informal notes;
        - ongoing notebook;
        - specific forms;
        - student program binder;
        - team consultation log;
        - notes on a centrally located clipboard;
        - notes on a bulletin board or in an individual mailboxes.
    - Person-to-Person Communication:
        - classroom (incidental, when the opportunity presents itself);
        - weekly team meeting;
        - monthly program evaluation meetings;
        - carpool;
        - friday after work get-together; and
        - before school.

Solving Problems and Addressing Issues

The following 5-step process is a typical approach to solving problems in the collaborative manner.

1. Define the problem.
   - State the problem clearly, completely and objectively.
   - State the desired outcome.
   - Analyse the discrepancy between the desired outcome and the actual circumstance.
   - Be aware that the actual commitment to solve the problem as a team rests with an agreement among the team members regarding the seriousness of the problem.

2. Identify the causes.
   - Identify contextual variables:
     - academic factors;
     - social factors;
     - behavioural factors; and
     - physical factors.
   - List the possible barriers that must be overcome.
   - List the possible capacities that can assist with problem solution.

3. Generate and consider alternatives.
   - What can be done to reduce the barriers?
   - What can be done to increase the capacities?

   NOTE: *At this point one of the greatest barriers is the resistance from team members to the changes that might be necessary.*

4. Decide and implement strategies.
   - Discuss the benefits of each alternative.
   - Identify the resources needed to implement each alternative.
   - Discuss the likelihood of success for each alternative.
   - Attempt to form **decisions by consensus.**

5. Monitoring for success (evaluation).
   - Was the strategy implemented as planned?
   - Is the current situation close to the desired outcome?
   - If the outcome is not close enough, other alternatives will have to be considered.

   NOTE: *Evaluation is typically considered the key component of the problem solving process.*

Making Decisions by Consensus

There are several ways in which decisions can be made:
- by the boss;
- by an appointed expert;
- by a majority vote;
- by averaging individual opinions; or
- by consensus.

Decision by consensus is preferred

Within the collaborative framework, decision by consensus is preferred. Consensus is usually arrived at through open discussion and represents a high level of agreement among the team. The higher the level of agreement the higher the commitment of all members to the decided resolution. The following guidelines for making decisions by consensus are offered by Rainforth and York-Barr (1997).

- Avoid arguing blindly for your own opinion. Present your position, but also listen to and consider the opinions of others.
- Avoid changing your mind only to reach agreement and avoid conflict. Support only the positions to which you are willing to commit.
- Avoid conflict-reducing procedures such as majority ratings flipping a coin, averaging and bargaining.
- Seek out differences of opinion. Viewed positively, diversity presents a wide range of information. Encourage everyone to contribute.
- If a stalemate is reached do not assume that someone must win and someone must lose. Continue to seek an acceptable alternative.
- Discuss underlying assumptions. Listen carefully and encourage participation.

Conflict Resolution: Working With and Through Differences in Perspective

Whenever an educational team assembles for a discussion, a difference in opinion at some point is almost assured. If the team members possess the skills to work through their differences the eventual impact of the discourse can be very positive. As stated previously, differences in perspective can lead to quality solutions to complicated problems. However, skills in conflict resolution are a prerequisite.

1. The importance of communication skills in conflict resolution

In conflict resolution one's communication skills have very little to do with the extent of one's vocabulary. They have everything to do, however, with making oneself clearly understood and respected, and in ensuring that one understands and respects the other team members. The following skills are considered necessary for effective communication.

Active listening

- An active listener pays attention to content, tone of voice and body language. The active listener questions for understanding, clarifies, summarizes and shows appreciation and respect.

Reflective listening

- A reflective listener is one who paraphrases, gives empathetic responses (e.g., "So you feel ___ when you ___") and summarizes.

Questioning

- Questioning can be used effectively to define, expand, inform, describe and clarify.

Assertive Communication "I" Language

- Assertive communication using "I" statements serves as a clear but nonthreatening method of expressing your perspective.

  Assertive Communication "I" Language has four parts:

  - When you___(describe the behaviour);
  - I feel___(describe how the behaviour makes you feel);
  - because___(state the effect on you); and
  - I need___(state what you want to happen).

2. Conflict resolution through principled negotiation

Invariably, a degree of conflict will occur between home and school or among the educational team. It is important to remember that conflict is not necessarily a negative factor. Rather, it can actually improve the team's cohesiveness and overall effectiveness. Conflict can provide the opportunity to clarify perspectives and responsibilities and to share information. It is the manner in which conflict is approached that is most important. If conflict does arise the tenets of *principled negotiation* (Orelove and Sobsey, 1996) are recommended.

- **Separate the people from the problem.** For example, rather than accusing a parent of being apathetic, a teacher might express frustration over the inability to attain information that might aid the students program.

  Try to:
  - stay away from blaming others;
  - strive for clear communication;
  - acknowledge a possible range of emotions; and
  - check for clarity regarding perceptions and interpretations.

- **Focus on interests, not on positions.** "Your position is something you have decided upon. Your interests are what caused you to decide" (Orelove and Sobsey, 1996, p. 455).

  Try to:
  - find the common interests that are determining the various positions;
  - identify various paths to the same end; and
  - be empathetic to others' perspectives.

- **Create options for mutual gain.** It is not a matter of winning one's point, but arriving at a decision that is best for the student.

  Try to:
  - create options that the group can consider; and
  - brainstorm and select from a variety of options.

- **Use objective criteria to evaluate outcomes.** All decisions have to work for the student. If not, they have to be changed.

  Try to:
  - as a group, decide criteria for successfully reaching the desired outcome;
  - document the criteria in writing; and
  - arrange to meet at a later date to review progress, based on the documented criteria.

School Leadership: Promoting Collaboration

It takes time to create a truly collaborative atmosphere within a school community. Deliberate and methodical effort is required. The typical teaching staff offers a mosaic of personality traits. For some, collaboration is a very natural thing; for others it is a drastic change. Regardless, the benefits of collaboration are far too apparent and cannot be ignored. There are many ways in which school leadership can foster the collaborative culture.

- Promote the virtues of collaboration (present a rationale).
- Model collaboration through collaborative lead management.
- Mentor collaboration.
- Conduct staff professional development through active, constructivist learning activities.
- Attempt to maximize time for collaboration. Promote regularly scheduled meetings.
- Provide training in collaborative problem solving, conflict management and conflict resolution.
- Develop an awareness of what constitutes collaborative behaviour in a group situation.
- Develop an awareness of the need for effective communication skills.
- Ensure that team meetings are effective.
- Ensure that there is an appropriate division of labour within teams, and that all roles within the team are clearly defined.
- Encourage collaborative instructional strategies (e.g., co-teaching).

- Be aware of the importance of interdependence; that collaboration occurs within contexts of shared goals.
- Encourage family involvement.
- Link the school with the community at large.

Team Membership

Team members are chosen according to their relative benefit to the student's functional development. There is typically a core team and an extended team.

The core is made up of those who are most directly involved in carrying out the daily educational program. Members of the core team should be chosen according to the relevance of their expertise and program influence and their ability to provide frequent and in-depth involvement with the program. Typically the core team consists of the student with intellectual or multiple disability, family, significant peers, regular classroom teacher, special education teacher, the paraprofessional and the principal.

The extended team are those who are available if needed but are not required frequently or regularly. Members of the extended team may include peers, special subject teachers, academic and behaviour consultants, speech-language pathologists, vision and/or hearing specialists, occupational and/or physical therapists, counsellors, social workers, health professionals, job coaches and volunteers.

It is important to have a variety of support personnel available. However, there is also concern regarding who should be on the core team as too many members can affect the team's collaborative nature. More people means more expertise, but it also means added schedule coordination and greater risk of communication difficulty. When educating a student with an intellectual or multiple disability, the size of the extended educational team tends to increase with the intensity of the student's needs. With multiple needs the use of specialists increases.

The knowledge and skills that specialists bring to the educational team are extremely valuable. At times, notably in medical situations, they are crucial. However, the concept of *more is better* has to be viewed with caution. The use of specialists within a transdisciplinary team has to be well coordinated as there can be problems if the specialist's roles are not understood and organized. Problems, and possible erosion of team efficiency, can develop when specialist(s) involvement creates:

- separate goals and a different agenda than that of the core educational team;

- a major disruption in the student's schedule, routines, and class participation;
- an approach that is over technical and stigmatizing for the student;
- feelings of frustration and being overwhelmed by the number of people involved;
- feelings of exclusion by other team members;
- deficiencies in communication and coordination among the team; and
- fragmentation of services.

Furthermore, team cohesiveness and efficiency can be undermined if specialists:

- have exclusive authority over decision making;
- provide only direct service without involvement of the larger team;
- develop separate goals; and
- determine their goals prior to knowing the broader educational goals.

Two approaches that illustrate the use of specialists in a professional and productive manner, yet are in keeping with the values of collaborative interdisciplinary team work are the *Natural Supports* (Kunc, 1992) and the *Only as Special as Necessary* (Giangreco, 1997) approaches.

Natural Supports

The *Natural Supports* approach emphasizes supporting the student in the environments that would be frequented if she/he did not have a disability; home, community, classroom and neighbourhood. It uses people who have an experience-base expertise with the student (e.g., family, classmates, community members, co-workers, teachers and paraprofessionals). Although teachers and paraprofessionals have to be considered as key personnel, a major focus of *Natural Supports* is to maximize the use of nonpaid and/or nonprofessional persons. This approach also recognizes the importance of the student's self-advocacy and self-determination for shaping their own lives.

Instruction, time and space can also be considered as natural supports. Techniques such as team teaching, peer tutoring, and cooperative learning permeate support throughout the team. The effects of these methods are often continued and spontaneous support for the student without teacher supervision (Gregal, 1998).

Wraparound Process

The *Wraparound Process* (VanDenBerg and Grealish, 1998) describes a method of establishing coordinated natural supports based on the student and family needs, values, strengths, unique culture, preferences, desired outcomes and informal resources. It emphasizes an inclusive community base with the family placed in an important decision making role. Although not designed specifically for students with intellectual or multiple disabilities, the *Wraparound* concept, adapted to local contexts, offers an effective organizational model for school-based teams.

Only as special as necessary

The *Only as Special as Necessary* approach seeks to provide a bridge between the *Natural Supports* and the specialist philosophies. It emphasizes the importance of shared learning from both the professional training and experience point of view. The Vermont Interdependent Services Team Approach (VISTA) (Giangreco, 1996) is an example of an *Only As Special As Necessary* approach. It provides a medium for consideration of specialized and experience-based information. It encourages natural supports whenever possible and counteracts the potential overuse of specialists by:

- including the family on the team;
- tying support services to priority goals set by the team;
- using a decision making process based on consensus that selects support services only if necessary and educationally relevant; and
- developing a natural support network.

In summary, developing an extended network of natural and specialist support increases the learner's potential for experiencing success. It is important to be aware of whom and what could be considered part of this network so that the team can find ways to incorporate the support in a coordinated fashion. Hoskins (1996) offers a simple method of organizing this awareness (see Table 5.1).

Table 5.1. Reflect

REFLECT

In the exercise below, think about your own system of support and ask yourself the question, "Who could be involved in my system of support from the classroom, the school, the school division, community and province?

- Classroom
- School
- School Division
- Community
- Province

From *Developing Inclusive Schools. A Guide* (p.82) by B. Hoskins, 1996, Bloomington, IN: CASE Research Committee. Copyright 1996 CASE Research Committee. Reprinted with permission.

Awareness of Individual Responsibility to Support Inclusion

As previously stated, the school principal and each team member has an important role in fostering inclusion. Consideration should be given to the the influence that each position has in support of all students.

1. The principal

The principal holds a determining role and subsequent influence for promoting collaboration within a school. The principal can:

- demonstrate a commitment to the ideals of inclusion, based on a thorough analysis of the philosophical basis;
- establish the concept of *one tent for everybody* by creating expectations that every student has the opportunity to take part in all school activities;
- develop the vision statement;
- support educational teams through shared decision making;
- involve parents and work to make parents feel comfortable as part of the educational team;
- coordinate with the community;
- enhance teacher expectations and attitudes;
- utilize the available support systems;
- attempt to maximize prep time;
- meet with teachers frequently;
- create a supportive network for the school as a learning organization by establishing school-based teams and seeking creative problem solving through collaboration;
- encourage visitations, observations and sharing sessions among teachers;
- encourage transition planning;
- use and support consultants;
- promote instructional innovation and appropriate curricular expectations;
- facilitate the relationship, responsibilities and inservice training among and between regular and special education; and
- attend to the constant need for renewal.

2. The classroom teacher

The classroom teacher has tremedous influence at the *grass roots* level. It is the classroom teacher who is the primary role model for the students. Without the classroom teacher's cooperation effective inclusion will not take place. In support of inclusion the classroom teacher can:

- demonstrate a commitment to the ideals of inclusion, based on a thorough analysis of the philosophical basis;
- accept responsibility as the primary educator(s) for all students in the classroom;
- visit other teachers who have successfully established inclusive frameworks;
- share successful methods and experiences with other teachers;
- actively meet with parents and invite their participation and support; work to make parents feel comfortable as part of the educational team;
- encourage a visible community presence for the student;
- determine realistic expectations for each student;
- collaborate;
- accept assistance;
- make a commitment to continual professional development;
- learn methods for accommodating diversity and multiple intelligences within the classroom; and
- advocate for the student.

3. The special education teacher

Through their professional training, special education teachers can offer specific knowledge regarding intellectual and mulitiple disabilities. Special education teachers can also represent a coordinating link among the staff. To support inclusion the special education teacher can:

- develop strong practical and theoretical expertise with regard to programming and instruction for students with intellectual or multiple disabilities;
- coordinate the development and writing of the personal program plan;
- support the classroom teacher through sharing expertise and assisting with systematic instruction; particularly with accommodating diversity and multi-level learning;

- support the paraprofessional(s) through sharing expertise and assisting with instruction;
- meet with parents, invite their participation and support and work to make parents feel comfortable as part of the educational team;
- encourage a visible community presence for the student;
- provide individual or small group tutorial when required;
- coordinate community-based education and work education;
- ensure each student's transition plan is carried out effectively;
- liaise with ancillary support agencies and personnel; and
- advocate for the student.

4. The family

Family involvement is extremely important to the ultimate success of their child's program. To assist the inclusive process the family can:

- establish the foundation for the program by stating the desired adult outcomes;
- be aware of the total scope of the personal program plan and the responsibilities of each team member;
- reinforce the skills being taught at school;
- be aware of the value of collaboration and the benefits of teamwork and be prepared to work as part of, and in support of, the educational team;
- inform the team about the student's life outside of the school (e.g., what motivates the student, the student's strengths, weaknesses, likes and dislikes);
- encourage a visible community presence for the student;
- be aware of the family's role as the key to program continuity;
- ensure each transition is carried out effectively;
- assist with evaluation by observing the student regarding generalization of functional skills taught in school;
- communicate to the school any major developments noticed at home or in the community that are related to the personal program; and
- advocate for the student.

5. Paraprofessionals

The paraprofessional's role is discussed in detail in the *Working with Paraprofessionals* section of this chapter.

Family Involvement: Building the Partnership

Families should be viewed as integral team members. Children exist as members of an interdependent system of family, community and school. It is reasonable to assume that what happens in one environment will have an effect in the other two. Realistically, it is the parents who have the greatest impact over the child's interactions at home and in the community. Families are important sources of information because they know the student better than anyone else. Furthermore, parents represent long-term advocacy and support for their child.

As instructors, parents represent a balance to the direct teaching that occurs at school. There is much testimony to support the benefit of indirect instruction in naturally occurring contexts. Families are in an exceptional position to fulfill this instructional role. Moreover, parents can check the extent to which skills learned in school are functionally applied in the community.

Families: the key to continuity

Each year the student with an intellectual or multiple disability faces a number of changes. The student's family represents consistency over the long term. Typically they represent the highest degree of the *experience expertise* available. Their contribution to the educational team, therefore, is invaluable. It is crucial that the school is aware of the family's potential for positive impact and that attempts are made to understand the family and seek their involvement.

Possible barriers to parent participation

It is important that school personnel acknowledge and understand potential barriers to parent participation. Parents tend to have a perspective and role that is different than the other members of the educational team. Their status is different, their training is different, they are more emotionally involved, and sometimes their long-term goals are different. For these reasons, tension may result. Barriers can also be caused by factors such as:

- not feeling welcome;
- a need for advocacy;
- uncertainty about their role as a member of the educational team;
- demographic and/or work schedule logistics;
- communication problems;
- feelings of inferiority; and
- uncertainty about their child's disability.

It is important for schools to understand these possible barriers and attempt to reduce them. Parent involvement rests on the school's understanding of the impact that having a child with a disability has on a family, and of the recognition of the needs and the strengths that families have.

Critical Factors Influencing Family Functioning

There are many factors that influence the degree to which the family of a student with an intellectual or multiple disability successfully functions. Some critical factors are the family's individual strengths, the family's support systems, the degree of stress experienced and the family's reaction to the disability.

The level of family functioning is dependent on a variety of factors, and the impact is different for each family. There is considerable variation among families. This indicates that families ought not to be stereotyped, but responded to on an individual basis.

1. Family and personal strengths

Recognizing family strengths and not dwelling on the weaknesses, is an acknowledged method for assisting parent-school partnerships. Psychological well-being and the ability to effectively interact with societal and governmental structures are essential if families are to develop and maintain support networks. A family's strengths can be identified in its structure and interaction, culture and ethnicity, family development and change, and family functions. Personal family strengths can be viewed in:

- degree of knowledge, skill and experience;
- positive beliefs and attitudes about parenting;
- problem-solving skills;
- positive perceptions;
- self-respect;
- perceived personal competence;
- tolerance;
- protectiveness;
- affection;
- flexibility;
- expression of positive hope;
- family pride; and
- ability to work within a team (Hilton and Ringlaben, 1998, p. 276).

2. Support systems

Support can be developed at the family and community levels. Family resources may include spouses and siblings, extended family, cultural kinship and financial stability. Community resources may include parental subsystems such as day-care, babysitters, friends, parent-to-parent support groups, advocacy organizations, church and the religious community, human service professionals, teachers, formal programs, medical professionals (including alternative medicine), peers and family networks.

3. Stress

Increased stress has been directly associated with having a child with a disability. It is present at every stage of the child's development, although the type of stress may change as the child matures. The home-school relationship can be a significant source of family stress. Schools ought to be aware of this and seek to reduce the contributing factors.

Stress can be caused by a number of factors. For example:

- increased parenting responsibilities;
- increased financial responsibilities;
- dealing with health care professionals;
- dealing with education professionals;
- loss of control in decision making;
- contradictions in professional and social networks;
- cultural demands and confusions;
- lack of services;
- unmet needs;
- transitions;
- the child's developmental growth;
- demands of other family members; and
- possible reduction of support.

4. The family's reaction to the diagnosis

All families react to the diagnosis of their child differently. Having a child with a disability can be a very challenging experience for a family. Historically, the emphasis of the family experience and reaction has been placed on an ongoing grieving process. Indeed some families find the diagnosis of their child to be very traumatic and will experience a grieving process and a sense of loss at various stages of their child's development. Some families always measure their experience against *what might have been.* This is not the reaction of all families.

Much research has been done supporting an increased recognition of family resiliency. Family resiliency suggests that families of children with intellectual or multiple disabilities are strengthened by their parenting experience and that their children are loved, nurtured and celebrated. The notion of family resiliency must be acknowledged to ensure that families are not perceived to be in a state of denial because they focus on their child's success and strengths versus their limitations or challenges.

It is important to recognize that the reaction and experience of each family is unique. Even families who have children with the same diagnosis will not react or function in the same way. The diagnosis does not dictate the reaction of the family. It is important to understand the experience and attitude of the family, and to learn about their journey as a family from their perspective. A clinical diagnosis or assessment is not able to articulate the context of the students' life or the priorities and dreams of the family. These discussions are critical to establishing a foundation upon which an individual program plan can be developed and expanded (Husch Foote, 2001).

Strategies for Family Partnerships

There are a number of factors for teachers to consider when developing the family-school partnership.

1. **General considerations for interacting with parents**
    - Try to de-emphasize comparing students to a norm, especially in the evaluation process.
    - Allow growth at an individaul rate, including the plateaus.
    - Remember that educational programming is not a matter of fixing, but promoting individuality. Let the family know that you celebrate their child's individuality.
    - Be aware of even the little achievements and celebrate personal bests.
    - Plan with consent and participation of the family and involve the student as an active participant.
    - Use person-centred information, avoiding generalizations and stereotypes.
    - Always maintain dignity and respect and avoid language that portrays the student as *suffering* or as a *victim.*
    - Use a strength-based approach.

- De-emphasize labels.
- Be prescriptive instead of descriptive; focus on what is needed to be successful, not on what is wrong.
- Encourage questions and identify sources of support.
- Be a source of information; be able to provide the family with information about the child's disability if they want it.
- Accept information from parents.
- Be empathetic; put yourself in the shoes of a parent of a child with a disability.
- Talk *with* families, not *at* them.
- Listen to the family's perspective. Try to understand their opinions about the pros and cons of the child's program and be prepared to consider some strong and divergent values and beliefs.
- Be aware of parent concerns and try to find ways to address these concerns.
- Be aware that parents' satisfaction is most strongly related to factors such as caring teachers and the child's sense of well-being.
- Be sensitive to the different perspectives of special education among and between cultural groups. What is and isn't special is often based on cultural and social phenomena and acceptance of differences. Families may need information about assessment and identification processes and about their rights as parents.

2. Realize the reciprocal benefits of home-school communication

- The school gains greater understanding of the needs of the student and the family.
- The school gains the ability to make more meaningful choices regarding instructional strategies.
- The family gains a greater understanding of the what the school is trying to accomplish.
- The family can learn about their rights and responsibilities within their child's program, and how they can become involved.
- As home and school become more informed they become more competent, and working together to provide a full day program for the child becomes a reality.

3. **Reach out to the family and maintain effective communication**
    - Develop well defined procedures for the family to follow.
    - Identify the family's preferred method for communicating.
    - Persist; effective communication takes time to develop.
    - Provide information in language and terms that are familiar to the particular family; avoid jargon.
    - Use videotapes and audiotapes if necessary.

4. **Be exceptionally sensitive to families whose child has emotional/behaviour difficulties**
    - Avoid blaming the parents for their child's behaviour.
    - Meet regularly to empower each other.
    - Avoid dwelling on the problem; use problem solving to generate potential solutions.
    - Stay optimistic.
    - Use praise.

5. **Be concerned also for the student's siblings, for they may also need support**
    - Identify the concerns of siblings. They may need time to talk, information about disabilities, time to hear about the experiences of other siblings or ways to plan for the future.
    - Remember that the school's effectiveness at meeting the challenges of diversity and welcoming all students has a profound impact on a sibling's educational experience and self esteem, and on the sibling's ultimate acceptance of her/his sibling with a disability.
    - Try to support or facilitate opportunities with the parents to meet the sibling's needs.
    - Share your resources with siblings.

Working with Paraprofessionals

It is important for paraprofessionals to be prepared for, and feel capable of, the tasks they are asked to perform. Paraprofessional competence is directly related to the degree of preparation received. There are skills and abilities involved with the paraprofessional position that are general to all students, some that are specific to students with intellectual or multiple disabilities, and some that are specific to working in inclusive environments. It is very much a multi-faceted assignment.

The following are suggested competencies for the various aspects of the paraprofessional position (Hilton and Ringlaben, 1998).

Competencies

1. Core competencies related to all students

To work in education and related service programs for children and youth with exceptional needs, paraprofessionals must demonstrate the following:

- an understanding of the value of serving children and youth with disabilities and other special needs in inclusive settings;
- an understanding of the roles and responsibilities of professional and paraprofessional personnel;
- an ability to communicate with colleagues, follow instructions and use problem solving and other skills that will enable them to work as effective members of the instructional team;
- a general knowledge of the legal and human rights of children and youth with exceptional needs and their families;
- a sensitivity to diversity in cultural heritage, life styles and value systems among the children and families they serve;
- a knowledge of human development and milestones typically achieved at different ages, and risk factors that may prohibit or impede typical development;
- an ability to motivate students, to build student self-esteem, to develop interpersonal skills that will help the student avoid isolation in different learning and living environments, and to develop student independence;
- an ability to follow health, safety and emergency procedures developed by the school division; and
- an ability to use assistive technology and adaptive equipment and to provide special care or physical assistance that children and youth may require (e.g., positioning, transferring, assisted eating).

2. Competencies for regular education settings

- an ability to tutor students in academic subjects and self-help skills using lesson plans and instructional strategies developed by teachers or other school professionals;
- an ability to follow the direction of the teacher(s) to gather and maintain data about the performance and behaviour of individual students, and to confer with special and general education staff about student schedules, instructional goals, progress and performance;
- an ability to follow through on instructional procedures and reinforcement techniques that are developmentally and age appropriate; and

- an ability to operate computers, assistive technology and adaptive equipment that will enable students with disabilities and other exceptional needs to participate more fully in general education.

3. **Competencies for working in vocational and transitional training programs**

   - an understanding of the distinctions among different employment models;
   - an ability to participate as a member of the team with regard to transitional planning and vocational assessment for individual students;
   - an ability to participate in pre-employment, vocational, or transitional training in classrooms or at community sites;
   - an ability to task-analyze job requirements, sequence the day, observe and record data and provide training at job sites using appropriate instructional interventions;
   - an ability to motivate students to work; and
   - an ability to communicate effectively with employers and employees at work sites, and with personnel or members of the public in other learning environments.

In addition to the above competencies, a commitment to life-long learning is crucial to the paraprofessional position. On-going professional development, self-evaluation and updating of skills are necessary to stay current with *state of the art* methods and materials.

The Working Relationship

Teachers and paraprofessionals enter into a working relationship in support of the student with intellectual or multiple disability. Of all the members of the collaborative team, it is teacher-paraprofessional interaction that occurs most frequently and requires the most collaborative planning and decision making. Clearly defined communication and leadership techniques are essential. Teachers have to be accepting of and prepared for the supervision and management duties that will be involved, and may have to secure guidance and training from their own supervisors in this regard.

Teacher competencies

The teacher competencies considered necessary for effective teacher-paraprofessional interaction are:

- a knowledge of school division policies with regard to the employment, roles and responsibilities, placement and evaluation of paraprofessionals;

- an ability to plan, assign, and schedule specific duties for paraeducators;
- an ability to direct and monitor the day-to-day work of the paraprofessionals;
- an ability to delegate appropriate tasks to paraprofessionals;
- an ability to use effective communication and problem-solving techniques to reduce interpersonal or other problems that may occur in the classroom;
- an ability to objectively and systematically determine the strengths and weaknesses of paraprofessionals assigned to the classroom; and
- an ability to plan and provide structured on-the-job coaching sessions based on the identified training needs of the paraprofessionals.

School division guidelines

The teacher-paraprofessional relationship becomes nebulous without direction from the school division. Clarity to the paraprofessional position is added when the school division has developed a mission statement, a philosophy and a rationale for the effective education of students with intellectual or multiple disabilities. It is also beneficial to have a description of the paraprofessional position within the inclusive practices. This may include:

- the process for assigning the paraprofessional position;
- the general roles and responsibilities of each member in the educational team;
- the specific job function of the paraprofessional;
- performance expectations, including a suggested code of conduct;
- professional development opportunities;
- the process for supervision and evaluation; and
- work schedules.

Paraprofessional roles and responsibilities

The teacher and the paraprofessional need a clear, mutual understanding of what to expect from each other. The teacher's basic role has been explained previously in this section. Table 5.2 outlines suggested responsibilities and duties of the paraprofessional.

Table 5.2. Roles and Responsibilities of the Paraprofessional

Roles and Responsibilities of the Paraprofessional

- assist individual students in performing activities initiated by the teacher;
- supervise children in the hallway, lunchroom, and playground;
- assist in monitoring supplementary work and independent study;
- reinforce learning in small groups or with individuals, while the teacher works with other students;
- provide assistance with individualized program materials;
- assist the teacher in observing, recording and charting behaviour;
- assist the teacher with crisis problems and behaviour management;
- assist in preparation/production of instructional materials and modifications;
- carry out instructional programs designed by the teacher;
- work with the teacher to develop classroom schedules;
- carry out tutoring activities designed by the teacher;
- assist the classroom teacher to include and involve the student with special needs in classroom and extra-curricular activities;
- assist in the observation and assessment of students as requested by the teacher/supervisor;
- maintain records relative to specific programming and student performance as requested by teacher/supervisor;
- assist in related duties which may be assigned because of specific needs (e.g., the maintenance and/or preparation of instructional and life skills materials);
- participate in parent-teacher conferences and assist with parent communication on request;
- supervise and/or participate with students in community-based programming when requested;
- assist the teacher to provide program adjustments that are suitable to the student's behavioral and emotional make-up;
- assist with carring out behaviour management programming;
- assist with occupational and physical-therapy exercise under the direction of professional staff;
- assist with student's dressing and feeding;
- assist with sensory integration programming as outlined by the therapist (according to individual school division policy);
- administer medication and chart its distribution (according to school division policy);
- assist with toileting and toilet training programs;
- assist with a student's daily hygiene;
- work directly with students in different settings where a teacher is not available at the site (e.g., work experience placement);
- support students in their participation in activities in the community;
- support and train students in work placements under direction of the teacher(s);
- reinforce social and personal skills to ensure the successful inclusion of the student with special needs;
- attend professional development activities related to needs of students in the program; and
- assist with communication development, under the direction of the teacher and/or speech and language pathologist.

From *Teacher Assistant Handbook*, by Saskatoon Catholic Schools, 2000, Saskatoon: Author. Reprinted with permission.

Table 5.3. Teacher/Paraprofessional Roles and Responsibilities

	Roles and Responsibilities	
	Teacher	**Paraprofessional**
Key Roles	Responsibilities for planning for all students and for providing direction and guidance to the paraprofessional as to specific duties which will support complement services to students.	To support implementation of programs.
Instructional	1. Design and deliver a well-planned, coordinated program for each child. 2. Assess, set and implement goals, plan instructional strategies, and materials. 3. Provide the goals, teaching strategies, and evaluation criteria to paraprofessionals for each lesson for which the paraprofessional is responsible. 4. Provide the paraprofessional with the materials and the manner in which the student is to be directed. 5. Evaluate student's progress. 6. Train the paraprofessional to observe target behaviors. 7. Train the paraprofessional to implement behaviour management techniques. 8. Provide the paraprofessional with goals and expectations for learning and behaviour. 9. Provide paraprofessionals with the necessary information regarding personal care needs. Give appropriate notice to the paraprofessional regarding any change in the daily routine, which may interfere with the schedule of personal care for the student.	1. May provide input during planning phase as a member of the inclusion team. 2. Assist with the preparation of instructional materials. 3. Under the direction of the teacher, provide direct instruction to: · individual students · small groups · large group while the teacher works with individual students. 4. Provide reinforcement or drill following a lesson or assist with follow-up assignments. 5. Provide the teacher with feedback regarding student performance. 6. Assist the teacher in observing, recording and charting learning and behaviour. 7. Monitor behaviour management and maintenance following goals and techniques provided by the teacher. 8. Supervise in community settings. 9. Tend to the personal needs of the students when necessary.
Management	1. Communicate with parents. Check with the paraprofessional to gain any information which may need to be shared with parents. 2. Establish and clearly communicate to the paraprofessional a job description, student characteristics and goals, discipline procedures and class rules. 3. Manage and supervise work of the paraprofessional. 4. Communicate with the paraprofessional regarding the paraprofessional's performance by providing positive and specific feedback.	1. Provide teacher with feedback regarding student performances, and personal information which may need to be passed on to parents. 2. Communicate with the teacher to clarify duties, to understand student needs, and to support the teacher with regard to discipline and class rules. 3. Follow teacher direction and expectations. 4. Invite feedback from the teacher about performance. Offer suggestions to make the job run smoothly.
Non-Instructional	1. Include the paraprofessional as a team member by seeking the paraprofessional opinions as he/she works closely with the students. 2. Provide training for the paraprofessional in such areas as expectations, teaching strategies, observing and recording behaviour, and the manner in which students are to be assisted. 3. Conduct yourself professionally. 4. Respect confidentiality. 5. Be a model for the paraprofessional and students. 6. If working with students is not required all the time, the paraprofessional may assist by preparing adaptations to learning materials.	1. Participate as a team member by providing suggestions and feedback to the teacher. 2. Learn the expectations, philosophy and teaching styles of each teacher in order to support and complement the teacher for the benefit of all students. 3. Conduct yourself professionally. 4. Respect confidentiality. 5. Be a model for the teacher and students. 6. Prepare and adapt learning environment.

From *Diversity in the Classroom Series. Number Seven. Creating an Inclusive Classroom: Integrating Students with SpecialNeeds* (pp. 20-21), Saskatchewan Professional Development Unit and Saskatchewan Instructional Development and Research Unit, 1996, Saskatoon: Author. Reprinted with Permission.

Various factors influence the specific responsibilities assigned to paraprofessionals. These include the characteristics and personalities of teachers, paraprofessionals and students, the interpersonal skills of teachers and paraprofessionals, the skill level of the paraprofessionals and the physical environment of the classroom. Individual teachers may vary the responsibilities of the paraprofessional to enhance the program.

The Saskatchewan Professional Development Unit and Saskatchewan Instructional Development and Research Unit (1996) add further clarity to the paraprofessional role by outlining the comparative duties of teachers and paraprofessionals for key educational services (see Table 5.3).

Further to above suggested duties, it is recommended that each team complete a *Role Perception Activity* (see Appendix A). It is through this type of activity that optimal role clarity is established.

Promote student independence

All members of the instructional team should endeavour to provide a high quality of support for the student with an intellectual or multiple disability. Part of high quality support is fostering the independence necessary for decision making and self-determination. The manner of interaction between the student and the paraprofessional and the actual proximity of paraprofessionals to students is critical to eventual independence. Over-supporting and staying too close to a student can have very negative effects in the long term. Close proximity might include:

- maintaining physical contact with the student (e.g., shoulder, back, arms, hands) on a near constant basis;
- sitting in a chair immediately next to the student on a near constant basis;
- the student sitting on the paraprofessional's lap while the classmates are sitting on the floor; and
- the paraprofessional accompanying the student to virtually every place the student goes within the classroom, school building and school grounds.

The possible long term negative effects of close proximity are:

- interference of ownership and responsibility by regular classroom teachers;
- separation from classmates;
- dependance on adults;
- interference with peer interactions;
- limiting opportunities for instruction from other teachers;
- loss of student's personal control;

- loss of gender identity; this is most commonly observed when a male student is taken into the women's bathroom by a female paraprofessional; and
- interference with instruction of others. Sometimes classmates may be disrupted more by the paraprofessional doing different activities than the *noise* of the student with a disability (Giangreco, Edelman, Luiselli, and MacFarlane, 1997).

Balance time among all students and promote peer interdependence

As teachers and paraprofessionals collaborate on a day-to-day basis the student's eventual independence should always be an objective.

Bearing in mind the need to develop student independence and to encourage membership within the classroom's social network, the paraprofessional's assignment becomes a matter of balance among all students in the class. An ideal inclusive environment is one where all students have the support of each other, of the teacher and of the paraprofessional. Support that is too individual and too intrusive can interfere with potential connections among students. The paraprofessional's role, then, is expanded to include the possibilities of

- providing small group instruction;
- assisting the teacher with supervising cooperative learning or other peer collaboration groups;
- working individually, at some point, with all students in the class; and
- working with the large class group while the teacher spends individual time with the student with a disability.

Share effective teaching strategies

The inclusive classroom relies on support and assistance from a variety of personnel. It is important that those who interact most often with the student with a disability are continually made aware of the most effective methods of instruction. This is accomplished through the sharing of ideas and expertise among the team members. The collective history of the team acts to empower the individual. *Specialist* and *experience* expertise should be equally valued.

Nurture a positive relationship

A positive working relationship between the teacher and paraprofessional facilitates a shared sense of ownership and responsibility for the student's success. It is important that each person tries to make the other feel comfortable, supported and valued. Each person seeks a measure of trust from the other. Frequent discussions, formal and informal, are helpful in this regard.

Addressing Cultural Diversity Among Members

All members of the educational team are unique individuals and each member is shaped by the distinct culture(s) they have experienced. Consequently, all must be aware of and respect these cultural differences.

Cultural differences are sometimes manifested through differences in:

- personal space (i.e., the physical distance between each other with which an individual feels comfortable);
- body movement (e.g., posture, facial expression, eye contact);
- time orientation; and
- vocal and nonvocal language cues beyond words (e.g., loudness, inflection, accent, speed).

Differences in these behaviours among team members may interfere with collegiality. It is necessary for each member to be aware and respectful of these differences.

Team Development

People who are asked to work together typically do not become a team immediately. Each member of an educational team should be aware that a team goes through a series of developmental stages before it becomes efficient. The actual time it takes can vary, but the developmental stages tend to remain consistent. A knowledge of these stages can help team members make sense of the team's general behaviour, gauge where they are in terms of development, and realize that, in spite of problems, things are progressing in a normal fashion. There is encouragement, therefore, to persist as a team.

The stages of team development are:

1. **Forming**
    - the initial, orientation stage, when members seek their place in the group;
    - procedures and rules are developed;
    - testing and trust building occur; and
    - people are polite, impersonal, watchful and guarded.
2. **Storming**
    - a period of conflict;
    - some members may resist and rebel;
    - there can be infighting and a need for goal clarification;
    - there can be a feeling of "being stuck";
    - at this point the team is most vulnerable to collapse, but difficulties need to be confronted and conflicts resolved; and
    - some members may choose to leave.

3. **Norming**
   - a period of establishing cohesiveness and commitment;
   - new ways of working together are discovered;
   - issues are routinely confronted; and
   - skills are developed and procedures validated.
4. **Performing**
   - the period of mature efficiency;
   - flexibility is established; and
   - resourcefulness, creativity, and supportiveness leads to progress.
5. **Adjourning**
   - the formal work is concluded;
   - the 'central mission' is removed;
   - dissolution of the group takes place; and
   - a period of mourning may result (Arbuckle & Murray, 1989).

Steps to a Quality Approach

In addition to awareness and knowledge of the typical stages of team development, systematic steps can be taken by the group to ensure the establishing of a quality team.

1. **Vision the ideal outcome image.** Each team member envisions the team's operational system once it has reached its ideal state. This includes the vision for team interaction with students and staff in its most productive, collaborative and harmonious manner. Team members could be asked to respond to the question "If you were to watch a video of your team in operation, what would you like to see?"

   Each team member describes their vision in written detail, and shares it with the other members of the team.

2. **Identify the behaviours involved in moving toward the vision.** This includes how you should treat the others on the team; how you would like others to treat you, how your team members will interact with students and what behaviours should be observed and heard as the team moves toward the ideal.

   An array of behaviours involved in the outcome image should be identified. The cooperative skills outlined by Johnson and Johnson (1998) could serve as a guideline for this identification process.

3. **Clarify the operating beliefs and the values implicit.** Each person on the team is a product of a unique set of life experiences. This background typically manifests itself in the particular values and belief system that the individual has developed. Each

member brings values and a belief system to the team and rarely do the individual values and beliefs totally match. This is particularly true when it concerns the education of students with an intellectual or multiple disability. It is important, however, that individuals share their perspectives and that all perspectives are respected and duly considered.

The collective perspective should also be discussed, bearing in mind the current research and recommended practice for students with intellectual and multiple disabilities. In addition, each team member has to consider the values and belief system of the school division for which they work. Each school division has a philosophy that guides the particular set of practices they want to see operationalized.

To become a quality team it is necessary that the individual, school division and research points of view be discussed. From this exchange a clearly understood set of operating principles and a shared purpose can result. Each member is then accountable to these principles.

4. **Brainstorm strategies and processes involved in moving toward the vision.** All team members do not have to act in the same manner. Strategies can be unique to each member. It is important that the action is in relation to the visioned outcome, and that it can be supported by other members of the team.

5. **Ensure that each person has a clear understanding of their roles and responsibilities.** There may be tasks that are typically assigned to specific roles, but it can not be assumed that each team member clearly understands the detailed scope of her/his responsibilities within the team. Role confusion can often result. It is recommended that a clearly articulated role definition and a clearly communicated list of responsibilities be provided to each person. Arriving at this clarity, however, it not necessarily easy, and usually involves a role perception process.

   Although most teams can easily distinguish the major differences in roles within the team, there are many day-to-day tasks that could overlap or be shared. Some tasks are the responsibility of one person but require input from other team members (e.g., student evaluation). Other situations have an established cultural or community pattern that governs them (e.g., some work education situations, procedures for field trips). The leadership style of the teacher must also be considered. Some teachers want to handle most things, others are comfortable delegating and sharing tasks. In addition, policy regarding certain tasks (e.g., giving medication) often differs among school divisions.

Because of the inherent possibility for confusion, it is necessary to clarify individual roles and responsibilities involved in particular situations. A role perception activity is helpful in this process. Role perception activities involve each team member: (a) reading a list of typical activities, (b) individually deciding who should be responsible for the task then (c) discussing their perspectives with the other team members. If there is a disagreement over certain tasks the team has to resolve the issue and clarify the responsibility. Refer to Appendix A for an example of a role perception activity.

6. Personal commitment

The final component for developing the quality team is that each team member should commit personally to the values of the envisioned outcome and work towards its achievement. It is only through each member actively pursuing their individual commitment that a quality team will result.

Recommended Reading

Arbuckle, M. A., & Murray, L. B. (1989). *Building systems for professional growth: An action guide.* Andover, MA: The Regional Laboratory for Education Improvement of the Northwest and Islands.

Baxter, C., Cummins, R. A., & Polak, S. (1995). A longitudinal study of parental stress and support: From diagnosis of disability to leaving school. *International Journal of Disability, Development and Education, 42*(2), 125-136.

Beninghof, A. M., & Singer, A. L. (1995). *Ideas for inclusion: The school administrator's guide.* Longmont, CO: Sopris West.

Buswell, B. (1999). Families: The key to continuity. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 171-181). Baltimore: Paul H. Brookes Publishing Co.

Downing, J. E. (1996). *Including students with severe and multiple disabilities in typical classrooms: Practical strategies for teachers.* Baltimore: Paul H. Brookes Publishing Co.

Felber, S. A. (1997). Strategies for parent partnerships. *Teaching Exceptional Children, 30*(1), 20-23.

French, N. K. (1997). Management of paraeducators. In A. Pickett & K. Gerlach (Eds.), *Supervising paraeducators in school settings* (pp. 96-169). Austin, TX: PRO-ED, Inc.

French, N. K. (1998). Working together: Resource teachers and paraeducators. *Remedial and Special Education, 19*(6), 357-368.

French, N. K. (1999). Paraeducators: Who are they and what do they do? *Teaching Exceptional Children, 32*(1), 65-69.

Giangreco, M., Edelman, S. W., Luiselli, T. E., & Mac Farland, S. (1997). Helping or hovering? Effects of instructional assistant proximity on students with disabilities. *Exceptional Children, 64*(1), 7-18.

Hilton, A., & Gerlach, K. (1997). Employment, preparation and management of paraeducators: Challenges to appropriate service for students with developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 71-76.

Hilton, A. (1998). A multidimensional model for understanding and working with parents and families. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 275-286). Austin, TX: PRO-ED Inc.

Hobbs, T., & Westling, D. L. (1998). Promoting successful inclusion through collaborative problem-solving. *Teaching Exceptional Children, 31*(1), 4-11.

Hoskins, B. (1996). *Developing inclusive schools: A guide*. Bloomington, IN: CASE Research Committee.

Kling, B. (1997). Empowering teachers to use successful strategies. *Teaching Exceptional Children, 30*(2), 20-25.

Napier, E. (1995). *Integrating students with special needs: Effective strategies to provide the most enabling education for all students*. Vancouver, BC: EduServ.

Orelove, F. P., & Sobsey, D. (1996). *Educating children with multiple disabilities: A transdisciplinary approach* (3rd ed.). Baltimore: Paul H. Brookes Publishing Co.

Palmer, D. S., Borthwick-Duffy, S. A., & Widaman, K. (1998). Parent perception of inclusive practices for their children with significant cognitive disabilities. *Exceptional Children, 64*(2), 271-282.

Pickett, A., & Gerlach, K. (1998). The roles and responsibilites of paraeducators who serve students with developmental disabilites. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 309-316). Austin, TX: PRO-ED, Inc.

Rainforth, B., & York-Barr, J. (1997). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Robertson, G., Haines, L. P., Sanche, R., & Biffart, W. (1997). Positive change through computer networking. *Teaching Exceptional Children, 29*(6), 22-31.

Ryndak, D. L. (1996). Educational teams and collaborative teamwork in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 77-96). Needham Heights, MA: Allyn and Bacon.

Salisbury, C. L., Evans, I. M., & Palombaro, M. M. (1997). Collaborative problem-solving to promote the inclusion of young children with significant disabilities in primary grades. *Exceptional Children, 63*(2), 195-210.

Salisbury, C. L., Wilson, L. L., & Palombaro, M. M. (1998). Promoting inclusive schooling practices through practitioner directed inquiry. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 223-237.

Saskatchewan Professional Development Unit & Saskatchewan Instructional Development and Research Unit (1996). *Diversity in the classroom series. Number seven. Creating an inclusive classroom: Integrating students with special needs.* Saskatoon, SK: Author.

Stainback, S., & Stainback, W. (1996). *Inclusion: A guide for educators.* Baltimore: Paul H. Brookes Publishing Co.

Steckelberg, V.S., & Pickett, A. (1993). *Using paraprofessionals effectively in the classroom.* Bloomington, IN: PhiDelta Kappa Educational Foundation.

Udvari-Solner, A. (1998). Adapting the curriculum. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 1-28). Baltimore, MD: Paul H. Brookes Publishing Co.

Vargo, S. (1998). Consulting teacher-to-teacher. *Teaching Exceptional Children, 30*(3), 54-55.

Villa, R. A., Thousand, J. S., Nevin, A., & Malgeir, C. (1996). Installing collaboration for inclusive schooling as a way of doing business in public schools. *Remedial and Special Education, 17*(3), 169-181.

Williams, V. I., & Cartledge, G. (1997). Passing notes to parents. *Teaching Exceptional Children, 30*(1), 30-35.

Wood, M. (1998). Whose job is it anyway? Educational roles in inclusion. *Exceptional Children, 64*(2), 181-196.

York-Barr, J., Kronberg, M. A., & Doyle, M. B. (1996). *Curriculum as everything students learn in school: Creating inclusive school communities: A staff development series for general and special educators* (Module 2). Baltimore: Paul H. Brookes Publishing Co.

6

Developing Curriculum: The Personal Program Plan

The Chapter at a Glance

- Core Curriculum and Common Essential Learnings
- Functional Curriculum: The Personal Program Plan
  - The Goals of Curricular Planning
- Defining the Personal Program Plan
- Approaches to Curriculum Development
  - The Developmental Approach
  - The Functional Approach
  - The Ecological Approach
- The Process for Personal Program Development
  - Assessment: Identifying Individual Needs
  - Preparing for the Personal Program Meeting
  - The Meeting: Negotiating Annual Goals Through Creative Problem Solving
  - Writing the Personal Program Plan
  - Evaluating the Personal Program Plan

Core Curriculum and Common Essential Learnings

Development of a personal program plan (PPP) for students with an intellectual or multiple disability begins with consideration of the Core Curriculum and Common Essential Learnings (CELs). Core Curriculum and the CELs provide all students with the skills, processes and values that can be applied in a wide range of settings.

Students with an intellectual disability or multiple disability have some needs that are more pronounced than students without disabilities. The CELs are adapted to reflect the general learning characteristics.

Communication Skills

The development of communication skills is a primary goal in the education of students with an intellectual or multiple disability. For these students communication is broadened to include not only the verbal and the nonverbal forms of communication, but also the alternative and augmented forms. Communication skill development is not an isolated program. Communication programs must be embedded in all areas of programming if students are to use these skills in a variety of activities and settings. Some possible objectives are for the student to:

- engage in a variety of experiences with language; expressing, listening, viewing, creating, understanding, responding and explaining;
- communicate in a variety of settings;
- develop abilities to read and comprehend for safety, communication, information and enjoyment;
- use writing abilities to communicate with others;
- speak with and to a variety of groups;
- use interactive listening skills;
- attempt to understand and use voice tone, gestures and other acceptable body language;
- use alternative and/or augmentative forms of communication which are practical and relevant to a variety of environments; and
- use oral language or an alternative form that is appropriate to various audiences.

Personal and Social Skills and Values

Personal and social skills have been identified as factors critical to the success of persons with intellectual or multiple disabilities in work, home, community and school settings. Social skills do not occur in isolation so they must be embedded within the relevant activities. Appropriate social skills may include:

- achievement of self-awareness and independence;
- working effectively by oneself and cooperating as a member of a team;
- understanding personal rights in relationship to the rights of others;
- taking responsibility and being accountable for the effects of one's own initiative;
- learning to use leisure time in a way that contributes to personal well-being;
- appreciating the importance and value of humour;
- offering and accepting criticism constructively;
- accepting individual responsibility for behaviours in building and maintaining relationships;
- handling conflict maturely and systematically;
- working cooperatively in group problem-solving situations;
- showing compassion and empathy toward others;
- getting along effectively with others;
- displaying respect for nature and a sense of stewardship for the environment;
- knowing and respecting the opinions, customs and individual differences among people;
- displaying fairness, honesty and tolerance; and
- showing sense of co-responsibility and global citizenship.

Creative and Critical Thinking

Through careful planning and appropriate selection of strategies and materials, and given many opportunities for use in both present and possible future environments, the students will be assisted to:

- understand that knowledge and feelings are a part of thinking;
- recognize problems and possible causes, and seek ways for assistance;
- make decisions appropriate to situations;
- recognize the need to use alternative solutions;

- set goals to match their abilities;
- work toward a goal in a sequential manner and within a suitable time frame;
- use available and pertinent resources;
- accept the necessity for alternate strategies;
- use previously learned skills in new situations;
- recognize when a strategy is not working and seek alternate methods; and
- recognize the sensible thing to do.

Independent Learning

Many of the strategies used to assist students in the acquisition phase of skill development foster dependency. It is essential that programs reduce students' dependency on cues, rewards and support personnel. The students will be assisted to:

- understand that certain skills can be used in a variety of environments;
- understand the importance of on-task behaviour;
- choose personal goals and priorities;
- establish surroundings and habits conducive to learning independently or with others; and
- develop the ability to search out or request needed information.

Numeracy

The lives of students with intellectual or multiple disablities are affected daily by numerical and quantitative concepts. To be an effective and productive member of society the student must be given opportunities to realize that his/her life is affected by numerical and quantitative concepts. The student will be assisted to:

- understand time schedules and basic money management;
- make quantitative decisions appropriate to personal wants and needs and the directions of others; and
- apply numerical and quantitative concepts necessary for travel, safety and health, consumerism, nutrition, recreation and leisure, home skills and employment.

Technological Skills

For many students with an intellectual or multiple disability technology has unlocked doors to communication, participation in activities and learning. Students will need to be assisted to develop the skills to use technology. Some possible technological learnings include:

- becoming aware of the relevant technological materials that will enhance the ability to function as a student and as a member of society; and
- using technology to enhance daily living, communication, safety and health, independence, cognition, leisure and recreation and decision making.

Functional Curriculum: The Personal Program Plan

In addition to the Core Curriculum and Common Essential Learnings, each student with an intellectual or multiple disability requires a personal program plan that focuses on individual strengths and needs. The PPP represents a functional curriculum for the student. It is a description of the student and a guide to the student's individual development. It describes the student's strengths and needs, and lists the priority goals and objectives that have been identified by the educational team.

The PPP also defines and guides the methods, materials and resources that will be used to support access to a variety of environments; identifies and coordinates specific roles and responsibilities; includes plans for future transitions and reports progress. Moreover, it is constantly subject to evaluation and renewal. It is, therefore, a continually changing document.

The existence of a PPP demonstrates an appreciation of individual differences and a commitment toward a quality education for the individual student. It represents the principles of fair treatment, equality of benefit, integrated services, collaboration and family involvement.

The Goals of Curricular Planning

The primary purpose of curriculum can be expressed through three essential goals that underlie the curricular planning process.

Collaborative process

1. Curriculum is the product of a coordinated collaborative process in which input from a variety of disciplines results in a single, transdisciplinary set of goals and objectives.

Student-centred and individualized

2. The entire collaborative process is converged on the strength and needs of the student. Goals and objectives that lead to optimal functioning within society are held as priority. Barriers to development may have to be identified, but they are not seen as reason to immediately abandon futuristic ideals.

Addressing the dimensions of successful schooling

3. In addition to the goals and objectives that are identified for each particular school year, a student's PPP is futuristic and considers the meaningful adult outcomes. Successful schooling results in a *quality life.* This quality of life is defined by:
   - the degree of independence and the skills for living with minimal assistance;
   - community presence and meaningful participation in community activities and organizations;
   - social networking opportunities and the skills to develop and maintain social and personal relationships;
   - maintaining a healthy and safe life style;
   - the degree of personal choice and the skills for self-determination and self-management; and
   - meaningful employment.

Defining the Personal Program Plan

An appropriate PPP is defined by specific characteristics. To develop a PPP that is effective for the student and usable for the educational team, the following criteria are considered.

A Personal Program Plan

IS ...

- written for one student;
- a written record of collaborative planning;
- an assessment by teachers, family, students and related services;
- an outline of priorities for the student's development in present and future environments;
- a focus on including the student within a variety of school and community environments;
- a description of the student's learning strengths, styles, preferences and needs;
- the goals and objectives for development;
- a process for determining the degree of intervention needed (e.g., the type and number of adaptations);
- a plan for the student's learning and service needs, including the type and amount of ancillary service (e.g., physical therapy, occupational therapy);
- a transition plan;
- a system for evaluation and reporting student progress; and
- dynamic and constantly changing in response to collaborative evaluation and changing needs of the student.

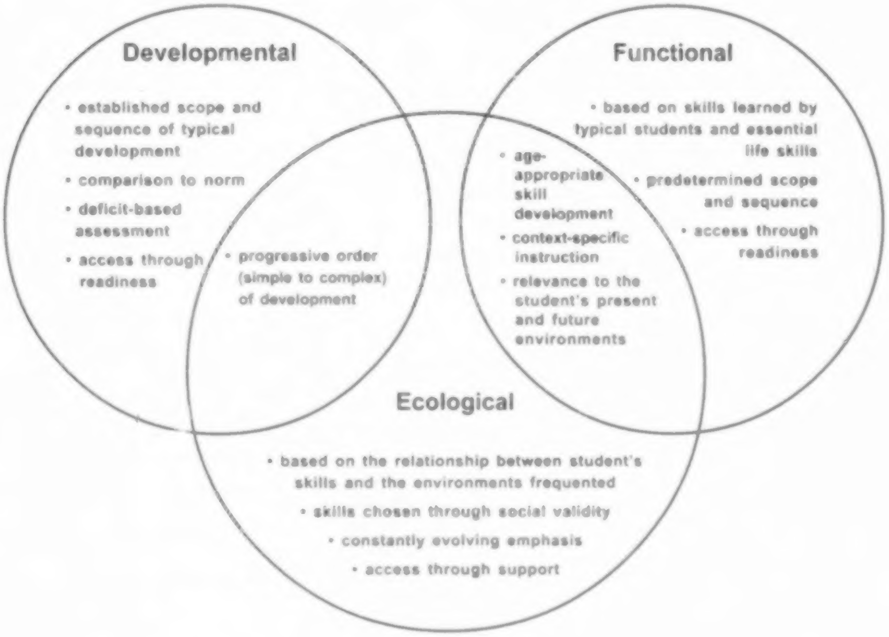
IS NOT ...

- a daily lesson plan;
- a contract;
- static and designed to last forever;
- a cumulative record/file of the students's school history; and
- perfect; continued problem solving is an inherent part of the PPP concept.

Approaches to Curriculum Development

The three most common methods of curriculum development are the developmental approach, the functional approach and the ecological approach (see Figure 6.1).

Figure 6.1. Approaches to Curriculum Development


Developmental
• established scope and sequence of typical development
• comparison to norm
• deficit-based assessment
• access through readiness
• progressive order (simple to complex) of development
Functional
• based on skills learned by typical students and essential life skills
• predetermined scope and sequence
• access through readiness
• age-appropriate skill development
• context-specific instruction
• relevance to the student's present and future environments
Ecological
• based on the relationship between student's skills and the environments frequented
• skills chosen through social validity
• constantly evolving emphasis
• access through support

The Developmental Approach

The developmental approach is perhaps the most traditional form of planning. It is based on the scope and sequence of typical child development. Fundamental to this model is that children develop skills in a typical and predictable sequence, and it is these skills in this particular sequence that should be taught to students with special needs. A student with an intellectual or multiple disability is assessed according to this developmental scale to discover the deficit areas. She or he is then taught the missing skills in the appropriate sequence.

There are three principle difficulties with the developmental approach when it is applied to students with intellectual or multiple disabilities.

- Typical development represents the very sequence through which students with disabilities have failed to progress. Often students become mired at a particular level. They may be denied access to environments because they are deemed *not ready*.

- Many of the skills represented in the typical sequence are not necessary or desired by the student with a disability and may represent a waste of instructional time.
- The developmental approach represents a deficit skill model and projects the student with an intellectual or multiple disability as incapable, developmentally young and forever in need of assistance.

The Functional Approach

The philosophy behind the functional approach to curriculum is that students with an intellectual or multiple disability need to acquire age-appropriate skills that are functional to their present and future lives. What is described as functional curricula for each individual student tends to depend on identifying significant components of typically developed skills and on a criterion-referenced assessment of independent living skills.

A functional approach is positive because it suggests higher expectations for the students and it promotes opportunities to learn age-appropriate skills. The actual skills taught, however, still tend to be chosen from a predetermined scope and sequence, which suggests the concept, and frequently the barrier, of *readiness*. Often these skills are termed *functional* because they are activities typical of people without disabilities, or are used in congregated programs specific to students with intellectual or multiple disabilities. Unfortunately this approach is not always functionally valid. The skills are not always relevant to the student's culture or life direction, or representative of student preference.

The Ecological Approach

Underlying the ecological approach is the relationship between the student and his or her present and future environments. The ecological approach attempts to embrace the environments, activities and skills that are the most relevant and important for the particular student. It assumes a constantly changing emphasis as the student progresses or changes preference.

The ecological approach acknowledges the positive features of the developmental and functional approaches. It recommends teaching skills that are age appropriate and relevant to the student's life. It also purports learning skills in a progressive order of complexity.

A major thrust of the ecological approach is student access to all desired environments. Rather than suggest prerequisite skills or readiness, access is a given. The objective is to discover how access can be supported. Adaptations to accommodate the disability or simplify the demands are encouraged. A direct result of access to expanded environments is an increase in learning opportunities. The educational team can access an extended range of opportunities for learning in natural contexts.

Other positive features of the ecological approach include the following:

- It is consistent with the typical learning and performance characteristics of students with intellectual or multiple disabilities. By its attempt to teach functional, age-appropriate skills in authentic settings it circumvents some of the inherent difficulties such as problem with generalization.
- It fosters local referencing; that is, it teaches specific skills in the manner appropriate to the environments in which they will be used. Skills taught from a commercially developed standardized (developmental) curriculum may not be what is required locally. For example, the public transportation skills required in Saskatoon are quite different from those required in Swift Current.
- The skills prioritized for instruction are determined to be functional and relevant through social validation; that is, they are skills used frequently in real life and are generally believed to be important.
- Because many of the skills prioritized to be taught are frequently and regularly performed by students without disability, the number of potential opportunities to learn from competent peers is enhanced.
- Because the ecological process emphasizes access to a variety of typical environments, the significant benefits of inclusion discussed previously would be available.
- It is futuristic, and considers future environments desired by the student.
- It encourages early and ongoing family involvement (Ryndak and Alper, 1996).

Within the ecological process, PPP priorities are established through a transdisciplinary collaborative process. To become a priority, a specific goal must be entirely authentic to the student's life and, in some manner, be relevant to the following criteria:

- maintain health and vitality;
- enhance participation in current and future inclusive environments;
- increase social interaction, including interaction with peers;

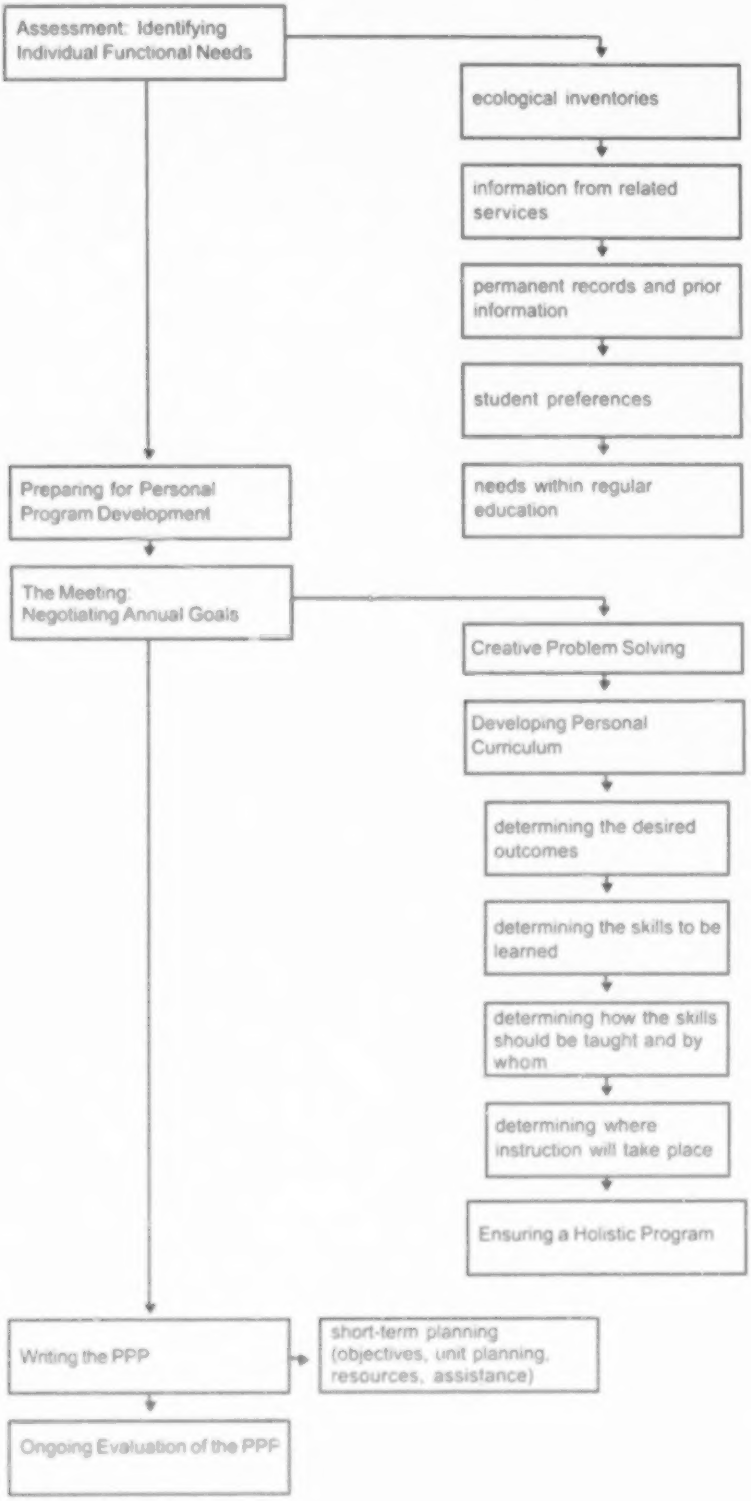
- have frequent or multiple applications across a variety of environments and activities;
- be essential for further development;
- be a student priority, which includes individual preferences or interests;
- be a family priority; and
- be a priority of a significant person in a target environment (Rainforth and York-Barr, 1997).

Once a priority is established it tends to become discipline-free. It is realized that competition among team members to establish precedence for their opinion or discipline can be counter-productive in the long term. The professionals involved collaborate to seek ways in which their particular discipline can be integrated with other disciplines within typical activities.

In summary, the ecological approach can enhance the general quality of life for students with intellectual or multiple disabilities. It is a positive approach that views the students as capable of learning and seeks to access as many present and future environments as desired. Of the three approaches presented, the ecological approach to curriculum development would seem to be the most appropriate for students with an intellectual or multiple disability.

The Process for Personal Program Plan Development

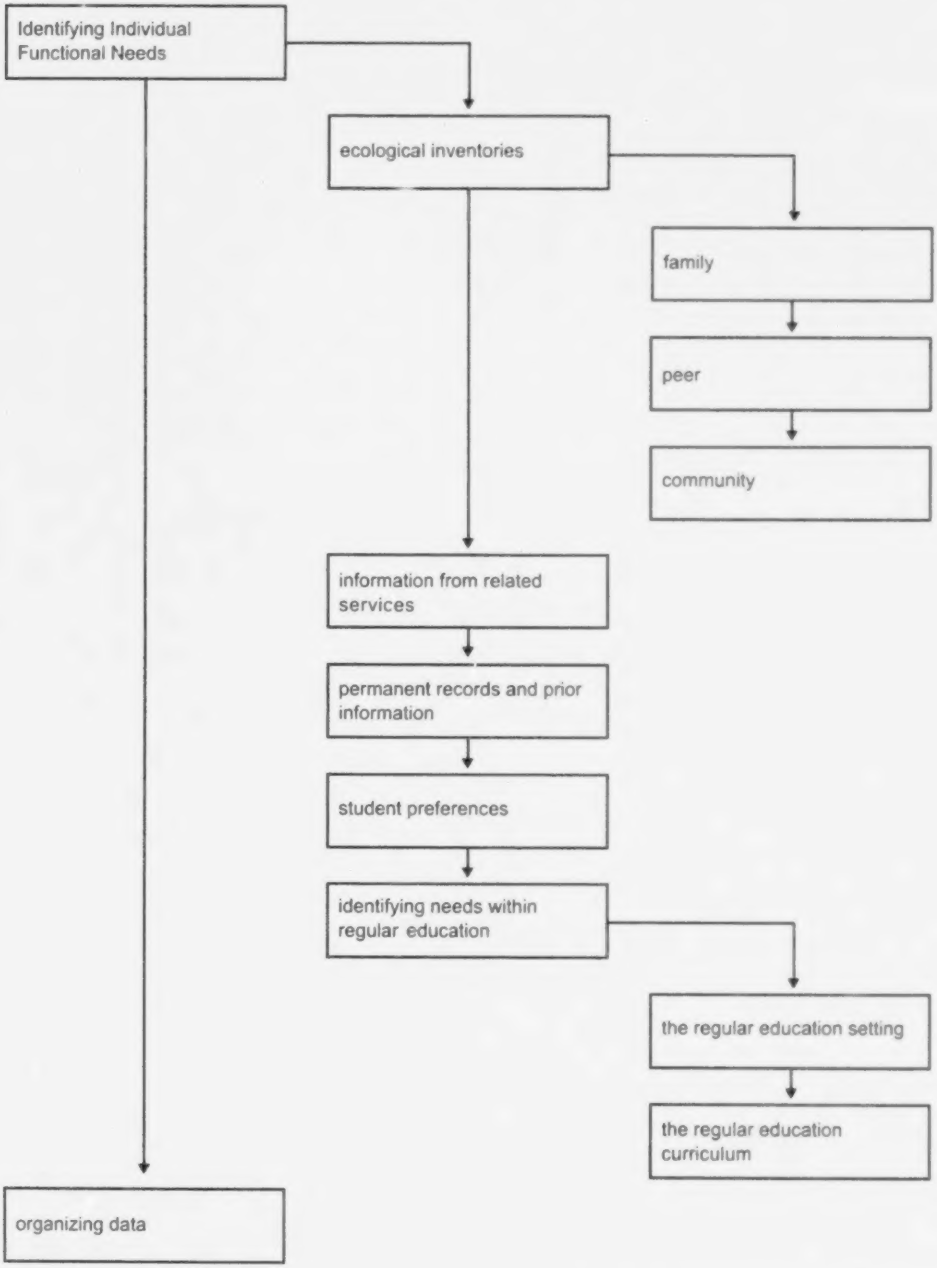
Figure 6.2. Personal Program Plan Development


Assessment: Identifying Individual Functional Needs
ecological inventories
information from related services
permanent records and prior information
student preferences
needs within regular education
Preparing for Personal Program Development
The Meeting: Negotiating Annual Goals
Creative Problem Solving
Developing Personal Curriculum
determining the desired outcomes
determining the skills to be learned
determining how the skills should be taught and by whom
determining where instruction will take place
Ensuring a Holistic Program
Writing the PPP
short-term planning (objectives, unit planning, resources, assistance)
Ongoing Evaluation of the PPP

Assessment: Identifying Individual Functional Needs.

In order to provide effective instruction and supportive access to preferred environments for the student with an intellectual or multiple disability, it is necessary to have a thorough knowledge of the student's strengths and needs. It is also important to know which environments the student and/or student's family wants to access, the demands that each environment will present and the type of adaptations that may be needed to support this access.

Figure 6.3. Assessment


Identifying Individual Functional Needs
ecological inventories
family
peer
community
information from related services
permanent records and prior information
student preferences
identifying needs within regular education
the regular education setting
the regular education curriculum
organizing data

Personal program plan content is identified through a comprehensive gathering of information about the student from people and settings that play a major role in the student's life. The educational team then uses this information to prioritize the student's instructional needs. This information is obtained through ecological inventories, information from related services, past records, the student's preferences and considering the demands presented by the regular education environment(s) and curriculum (see Figure 6.3).

1. Ecological Inventories

The purpose of an ecological inventory (also called an environmental inventory) is to gather highly individualized information about the specific demands of a student's natural environments and the student's performance within these environments. Typically the inventories are concerned with the domains of eventual adult functioning; community, school, leisure and vocational. Information is gathered from a variety of sources (see Table 6.4). Redundancy of information across environments leads to prioritization.

Underlying ecological inventories is the philosophy that persons with an intellectual or multiple disability have right to equal access to all environments. The difference between what a person with an intellectual or multiple disability can do and what a typical peer can do becomes the focus of a discrepancy analysis. This discrepancy determines the amount of support required.

Ecological information comes from interviews and observations made by the educational team members.

Table 6.4. Ecological Inventories

	Family Inventory
	A family inventory can give valuable information about the student in several areas:
Personal Profile	Interaction with others, ability to make choices, basic likes and dislikes (e.g., items, people, activities), personal management needs, health and medical concerns and possible cultural information and issues.
Home Life	Responsibilities, interactions, participation and needs demonstrated.
Community Activities	Recreation, hobbies, restaurants, shopping facilities and chore-related environments.
Work History	Experience at home, school and in the community, likes and dislikes, degree of support needed, level of job related skills and work ethic.
General Education Curriculum	Perceived benefits from inclusion, family desires, level of academic functioning and perceived support needed.
Future Hopes and Dreams	Living arrangement, work situation, leisure pursuits and environments to which access will be desired.
Functional Needs Priorities	The skills the family perceives as most important for participation in inclusive environments.
General Education Priorities	The family is asked to identify what they feel to be possible content for a functional curriculum.

Table 6.4. continued

Peer Inventory

A peer inventory can yield worthwhile information regarding ways to enhance meaningful and frequent social contact with peer groups. Examples of information may include:

- preferred school events and weekend activities;
- favourite leisure activities;
- trends in music, language and dress;
- how to "hang out"; and
- popular places to visit.

Community Inventory

The purpose of a Community Inventory is to:

- identify resources in the student's community for living, working and leisure; and
- the resources frequently used by the student's peers.

With a community inventory the educational team will compare the available resources with the actual preferences held by the student, the family and the student's peers. The resources that are most beneficial to the student are determined by a discrepancy analysis. The student's performance in a particular environment is compared to that of a typical peer. Opportunities for optimal participation and interaction are then determined, as is the degree of support needed.

2. Information from Related Services

Information is aquired from the other related disciplines involved. This may include occupational therapy, physical therapy, speech and language services, counselling, medical services and others. It is important that this information relates to the student's performance across naturally occurring environments. These environments are those that have been identified as functional to the student's life or desired by the student or student's family. For example: the general education classroom; other school settings such as the library, gymnasium, hallway, and playground; select community settings and home.

3. Permanent Records and Prior Information

Information gathered from past situations provides valuable insight into suitable curriculum content and effective instructional strategies. The student's academic skill level, adaptive problem solving ability, learning potential and probable performance, learning style and learning rate across a variety of naturally occurring environments may be determined.

It is also important to attempt to define the educational value system demonstrated by the previous environments by examining the curriculum and types of activities that were used. The approaches used and how they affected student performance are prominent factors.

4. Student Preferences

The curriculum considers the preferences demonstrated by the student over time and the opportunity to make choices. The operant word is *opportunity*. A typical curriculum objective is to teach the ability to make an informed decision and then deal with the consequences of that decision. The decisions made, therefore, must be respected.

5. Needs Within Regular Education

In addition to the individual functional needs of the student, it is also important for the educational team to consider the regular education setting and curriculum. Certain elements will be relevant for the student and these have to be discerned.

Some considerations about general education settings include:

- where the various classrooms are located, the distance between classrooms and the accessibility of the routes to each classroom;
- the physical structure of each learning environment (e.g., desk arrangement, lighting, decorations, student displays);
- the teacher's instructional style;
- types of materials used within each instructional environment;
- location and accessibility of instructional equipment and supplies;
- location and accessibility of storage areas;
- classroom rules for each instructional environment; and
- location and accessibility of bathrooms.

Each of the above factors is weighed in relation to the student's particular skill level. The degree of support needed is then determined.

The educational team also reviews the regular education curriculum for its instructional content and intended outcomes. The components considered relevant to the student's development are identified. For PPP development purposes, this process considers the regular curriculum in a very general manner. A more in-depth and specific consideration takes place on a daily basis, and becomes the premise for actual lesson plans.

Preparing for the Personal Program Plan Meeting

Prior to gathering to discuss the PPP, all of those involved need to prepare for what is going to happen at the meeting. The assessment information is distributed and the format, agenda and responsibilities for each participant at each stage of the meeting is explained. It is the responsibility of the team leader to distribute this information.

The major considerations

The purpose of the PPP meeting is to prioritize goals and objectives for the student's development. To arrive at these goals and objectives the educational team discusses the student's abilities in relation to her/his present and future environments. The major considerations for the discussion are:

- the student's profile, as described by the assessment information;
- the desired adult outcomes, as expressed by the family, the school personnel and other support services;
- the Common Essential Learnings as described by Saskatchewan Education;
- the regular education enviroments and Core Curriculum; and
- the demands of community contexts; (e.g., necessary communication and social skills, work habits, dress and hygienic codes).

In addition, each participant at the meeting requires an understanding of, and empathy for, the needs and perspectives of the other members. The teacher's needs have been outlined in *Chapter 4: Effective Practices*. See Table 6.5 for potential needs of parents, student and classmates.

Paraprofessionals also need to be apprized of the situation. They need to know about the student's various strengths and weaknesses; the roles and responsibilities they will be assigned, performance expectations and the general outcome expectations that will be set for the student.

Table 6.5. Planning and Preparation

Getting to Know Each Other

Prior to welcoming a child with an exceptional need into the classroom, planning and preparation is required. An initial meeting with the parents and the student will provide an opportunity for the parents, the student, the classroom teacher and the special education teacher to get to know each other and to discuss the coming year. At this meeting the needs of each party should be addressed.

Parents need	to meet the teacher; to be reassured that their child will be a valued member of the class; to be able to discuss their dreams and their fears and concerns; to be able to discuss their child's strengths, needs, likes and dislikes; and to discuss expectations, plans and strategies to include their child in the regular classroom.
The child needs	to meet the teacher; to meet classmates; to see the classroom and school facility; to discuss expectations; to be given a safe environment and an opportunity to discuss dreams and fears, likes and dislikes, expectations and plans; and to discuss and plan involvement with new classmates.
The classroom teacher needs	as much meaningful information as possible from the parents, the child and special education personnel; background information with regard to the student's specific disability, strengths and needs. This description helps the teacher to understand the individuality of the student and the specific nature of the student's needs; information regarding support personnel, equipment or procedures which may be required by the student; a discussion of the different strategies which are to be used to promote the inclusion of the student. Each strategy should be discussed with regard to the purpose, the steps, who is responsible and the timeline for implementation; a discussion of the different roles and responsibilities of all of the people who may be involved in the process; the opportunity to address anticipated needs, fears and concerns. The different supports that may be needed as well as the types of in-service should be planned. This may change after the child is in the room. The teacher may require more or less in the way of support and education than initially predicted. constant support and opportunity to discuss needs; and networking with other teachers who have experienced inclusion.
Classmates need	to meet their new classmate; to be educated about the specific nature of their new classmate's disability; to be taught how to interact with, respond to and communicate with their new classmate; to be educated with regard to disabilities in general; to discuss expectations; to be given a safe environment and the opportunity to discuss their feelings; and to be given opportunity to discuss and plan their involvement with their new classmate.

From *Diversity in the classroom series. Number seven. Creating an inclusive classroom: Integrating students with special needs* (pp. 14-15), by Saskatchewan Professional Development Unit & Saskatchewan Instructional Development and Research Unit, 1996, Saskatoon, SK: Author. Reprinted with permission.

The Meeting: Negotiating Annual Goals Through Creative Problem Solving

1. The Creative Problem Solving Process

Major Considerations

To determine the prioritized goals for the student the educational team is brought together for a creative problem-solving session. The educational team discusses the relationship between the student and her/his present and future environments. Each person at the meeting should be aware of and be prepared to discuss major considerations previously stated. This includes the student's profile, the desired adult outcomes, the common essential learnings, the regular curriculum and the demands of community contexts.

Methods for creative problem solving

There are several ways to conduct the creative problem-solving process. Two of the most popular methods are:

- **MAPS** (The McGill Action Planning System; also called the Multi-Action Planning System and the Making Action Plans System). MAPS was developed by Forest and Lusthaus (1989).
- **COACH** (Choosing Options and Accommodations for Children) developed by Giangreco, Cloninger, and Iverson (1998).

Both of these processes have been well documented in current literature and research, and over the years have emerged as highly recommended practices for determining curricula.

The **Multi-Action Planning System** is a family and student focused approach to deciding what to teach. The process focuses on the student's strengths and needs and involves parents as equal partners in the planning session. MAPS is designed to focus not only on the development of task-related skills but also on the development and maintenance of social relationships.

MAPS does not involve a published checklist of activities and skills against which the student is measured. The tools of the process are chart paper, a facilitator, a recorder, the student (when appropriate), parents, teachers, friends and persons working directly with the student.

The MAPS process is usually initiated two to four weeks after the beginning of the school year. The process is often divided into two phases. Phase 1 is the planning meeting in which the student parents, teachers, friends of the student and others having direct contact with the student decide upon goals for the student. Phase 2 is a meeting of teachers and specialists to set specific objectives and discuss instructional strategies. Please refer to Appendix B for the steps to the MAPS process.

The **COACH** process includes 3 major steps to program planning:

(1) Completing the family prioritization interview

- identifing valued life outcomes;
- selecting curriculum areas to be assessed;
- selecting from activity lists;
- prioritization; and
- cross-prioritization.

(2) Defining the education program components

- restating selected priorities as annual goals;
- determining the breadth of curriculum;
- determining general supports; and
- the program-at-a-glance.

(3) Addressing the educational program components in inclusive settings

- organizing the instructional planning team;
- becoming familiar with the student;
- becoming familiar with the general education program and setting;
- scheduling for inclusion; and
- considerations for planning and adapting learning experiences to accomodate student diversity.

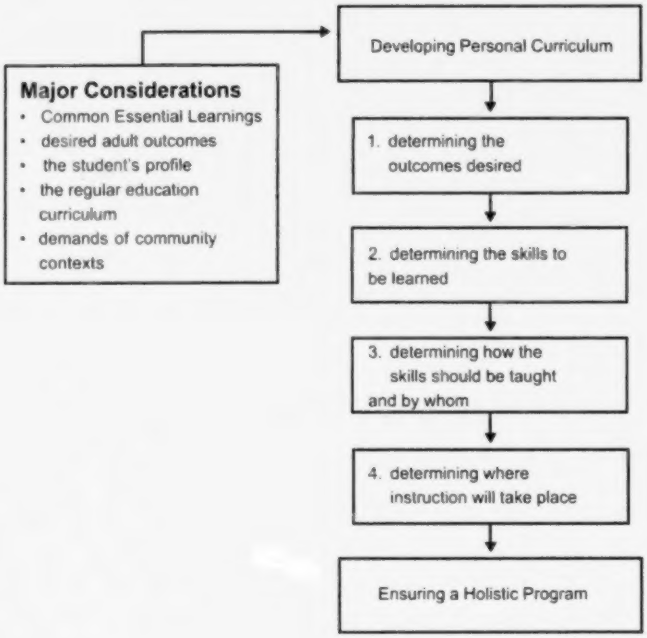
The **COACH** process is detailed in Giangreco, M., Cloninger, C, and Iverson, V. (1998) *Choosing Options and Accommodations for Children: A guide to educational planning for students with disabilities* (2nd ed). Baltimore: Paul H. Brookes Publishing Co.

2. Developing the Personal Curriculum

The phases involved in personal curriculum development

The term *curriculum* may bring to mind a commercially prepared scope and sequence of skills and a list of resources that guides the teacher. As previously stated, this standardized method tends to neglect authentic student needs, parent perspective and input from ancillary services. From the ecological perspective it would be considered too narrow.

Figure 6.6. Developing the Personal Curriculum


Developing Personal Curriculum
Major Considerations
• Common Essential Learnings
• desired adult outcomes
• the student's profile
• the regular education curriculum
• demands of community contexts
1. determining the outcomes desired
2. determining the skills to be learned
3. determining how the skills should be taught and by whom
4. determining where instruction will take place
Ensuring a Holistic Program

Rather than a predetermined set of skills, a process of four distinct phases for developing a personal curriculum is followed (Ryndak and Alper, 1996).

Phase One: Determine the outcomes desired for the student. These outcomes are determined by considering the environments the student frequents or desires to access. The outcomes are often similar to those achieved by typical students. Criteria for selecting learning outcomes include functionality, frequency of use, age appropriateness, ongoing and future usefulness, student preference, parental priority and immediacy of need (Giangreco, 1998).

To arrive at what can be considered an appropriate priority outcome, the assessment information is systematically analyzed by the educational team.

Phase Two: Determine the skills the student must learn in order to achieve these outcomes. For example, to maintain friendships the student may need to learn particular social and communication skills. To achieve independent or semi-independent living ability the student may need to learn housekeeping skills and money management. To achieve self-determination the student first must learn independence and choice making.

Phase Three: Determine how these skills should be taught and by whom. The student's learning style is considered and the strategies needed for efficient learning are defined. A thorough student profile is established. The information represented should include:

- cognitive (e.g., memory, generalization skills, categorization);
- physical (e.g., general health, medication, motor control);
- sensory (e.g., hearing, vision, tactile preferences);
- social/emotional (e.g., temperament, interaction skills);
- motivational (e.g., what encourages performance? tangibles? praise? activities?);
- interactional (e.g., prefers small groups over large groups); and
- creative (e.g., likes music, art).

Phase Four: Determine where instruction takes place. The student's primary instructional environment should be the regular classroom in the neighbourhood school. At times, other school and community environments are used. The appropriate school and community environments are discussed and established through a collaborative process.

3. Ensuring a Holistic Program

A responsibility of the educational team is to ensure that the PPP is holistic; that is, it encompasses all aspects of the students life. It is necessary, therefore, to consider each of the areas outlined in Table 6.7 and to ensure that priorities have been established.

Although each of the domains is given consideration, it is important to note that outcomes are not written for outcomes' sake. The ultimate intention of a PPP is to guide programming. An effective program is one that provides opportunities to grow in areas of personal strength, to enhance necessary skills that happen to be weak or absent, and to reduce behaviours that may impede independence or access to various opportunities. The intention is to challenge the student and build mastery of selected skills, optimal independence and access to a variety of present and future environments. **Goals and objectives, therefore, are written only for those domains that are considered a priority.**

Figure 6.7. Considerations for a holistic program

	The Areas of Development
Cognitive	The ability to problem solve, adapt within novel situations, compare and discriminate, generalize, accommodate new skills and assimilate new information into what is already known.
	There is some controversy over the cognitive domain. Some see it as a separate entity, while others see cognitive and academic as combined to form a single domain. Still others see cognitive skills embedded within all domains and, therefore, not described separately. It appears to be a matter of choice. The central issue is that the fundamental principles of cognitive behaviour are considered.
Communication	Communication focuses on expressive and receptive competence. It is the ability to effectively convey a message to another person and the ability to effectively receive, understand and react to a message from another person. Communication includes, but is not limited to, speech. For those who are unable to use speech there are several methods of augmentative communication that can be examined.
Academic	The essential focus is on attainment of functional skills in reading (for leisure and attaining information), writing and mathematics.
Social Skills	The skills necessary for initiating and maintaining social interaction and friendship are emphasized.
	The emphasis is placed on making constructive use of spare time through leisure pursuits that are individually fulfilling. Consideration is given to encouraging participation in such activities as community events, sports, and hobbies. The skills necessary for participation are considered, and may have to be taught.
Job Performance	The skills necessary for beginning a task and bringing it to successful completion are addressed. This would include such skills as listening to directions, preparing, following directions, maintaining concentration, persevering with a task, time management, tempo management, problem solving, neatness and cleaning up after the task is finished.
Personal Management	The ability to take care of oneself. It includes such skills as toileting, grooming, food preparation, money management, shopping and transportation.
	For students with visual disability the following are also included:
Orientation and Mobility	Students with a visual disability require the skills to move independently, safely and purposefully through their environment. To learn to do so with little or no sight requires careful planning and effective instruction.
Visual Efficiency	It is important that students with a visual disability make optimal use of their residual vision. Typically these skills have to be trained and reinforced through systematic instruction.
	Other Areas for Consideration
Technology	With the many technical advances and computer innovations that are now available, it is necessary to explore the entire area of technology for possible benefit to the student. Technology could hold the potential to compensate for disabling conditions or to provide access to environments that otherwise would be closed.
Wellness	Wellness is described as "an approach to healthful living that emphasizes the integration of body, mind, and spirit." (Huettig and O'Connor, 1999, p. 12). It is a notion that everything a child thinks, feels and does has an effect on her/his total quality of life. It reinforces the notion that human well-being is multi-faceted and complex.
	A holistic approach to education is an important underpinning to a lifetime of wellness. Consideration is given to the student's physical fitness and nutrition, spiritual values and ethics, emotional health, family concerns, community participation, intellectual growth (with respect to multiple-intelligence theory), social concerns and vocational prospects.
Medical	The student's physical health is always a major concern. If health concerns have been identified then consideration has to be given to how the student is supported at school. Issues such as staff training, administering medication, medical emergency action plans and nursing care are coordinated as necessary.
Personal Care	If a student is unable to administer to their own self care and requires personal assistance in this regard, the type and extent of this support is included in the PPP. It is also noted in the PPP if eventual independence in personal care is an intended outcome.
Transition	A specific plan for the student's transition to the next environment, including the personnel involved and their individual responsibilities, is documented in the PPP.

Writing The Personal Program Plan

When a curriculum goal is written it is important that it addresses the student's stage of learning for the particular skill involved. The instruction that subsequently addresses the stated goal also reflects this stage of learning.

All students can learn. Learning is change and there are four distinct stages to learning. Pausing to reflect on learning will be helpful when making decisions regarding what to teach.

The four stages of learning are: acquisition, fluency, maintenance and generalization. Because students with intellectual or multiple disabilities often lack the skills to perform many activities, the primary goal of programming is often to help them acquire these skills. Unfortunately, many programs focus on the acquisition stage of learning, spending little or no time on fluency, maintenance and generalization. This oversight can have long term effects on students. Should students perform newly acquired skills slowly, poorly or in a way that only their teachers and paraprofessionals understand, these students will be given few opportunities to practise those skills in their communities and, as a consequence, the skills will decrease.

To be complete, what is taught must address fluency, maintenance and generalization. Often it is assumed that once the student has mastered the acquisition stage of learning the other stages automatically follow. Usually this is not the case. These stages of learning must also be planned for, taught and evaluated.

Acquisition

It is appropriate to focus on acquisition when skills are absent or minimally known. During the acquisition stage reinforcement is important.

Fluency

Once a student has acquired a skill the instruction should focus on how fluent the student is when using it. During the fluency stage, perfecting the skill is addressed by increasing the speed, increasing productivity and/or increasing the quality of the response. Reinforcement is important when developing fluency.

Maintenance

Students who have acquired skills and perform them fluently must be able to remember these skills over time. During the maintenance stage, it is important to write a maintenance objective. For example, once Jill has acquired the skill of putting on shoes she will need to practise it. It is also important that the student be provided many opportunities for practise and use of these skills.

To build maintenance, it is important to train others in the students' life to carry on the program. If this is not done, it is possible for the student to become instructor dependent and perform only for a specific person. Varying training conditions, materials, instructors and settings are also critical to maintenance. Students may learn to perform an activity only in one context.

Generalization

The generalization stage occurs when students are asked to apply the skills they acquired in a variety of other environments. During this stage of learning, it is important to write a generalization objective. Emphasizing the common elements of activities, using intermittent reinforcement, and changing the reinforcer to a more naturally occurring one facilitate generalization. It is necessary at this stage to teach in different environments, to have different persons instruct the activity, and to evaluate performance in the environments where the skill will be used.

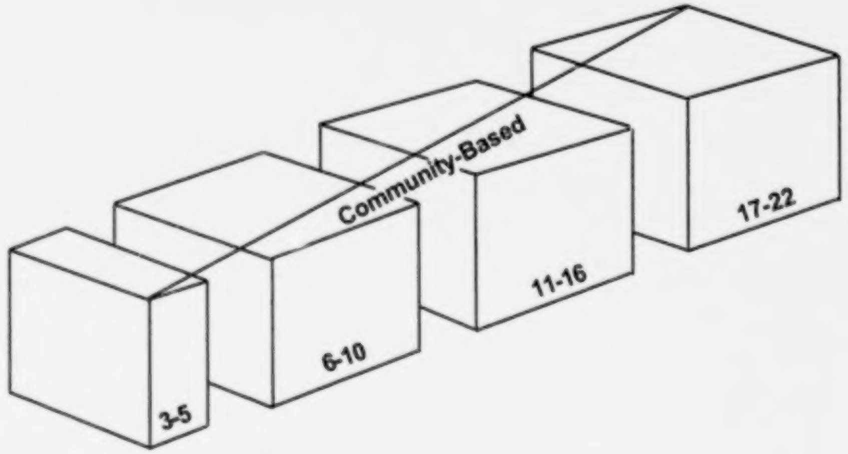
The Evolving Curricular Emphasis

As the student grows older the program priorities change. With physical and mental maturation distinct individual preferences evolve. Moreover, age appropriateness warrants the use of materials and experiences that are typical of particular age groups. The curricular emphasis also evolves and reflects the changes that have taken place in the student's life.

All PPPs should be developed from a futuristic view point. The ultimate goal for every PPP is to prepare the individual student for her/his next environment. The student's typical learning characteristics and the amount of time that may be needed to develop the desired skills have to always be kept in mind. Beginning at an early age, and with a realistic dream for the future, a holistic program is presented. As time passes, the educational team monitors the student's progress and the program that is being offered. It is through this monitoring that particular developmental domains are given priority. The PPP becomes an ever changing and evolving reference, all in accordance with the individual outcomes desired.

Another consideration is the time spent in community-based instruction (CBI). As the student matures the amount of time spent with CBI should be gradually increased. Figure 6.8 suggests approximate emphasis that should be allotted.

Figure 6.8. The Evolving Curricular Emphasis.



The primary location of instruction changes with increase in chronological age.

It is important, however, to have a clear understanding of what CBI is. The goal of CBI is to help prepare students to live and work as part of an adult community. The student, therefore, should attempt to learn the skills that will assist him in this regard. Learning these skills within the context that they will be applied is an effective instructional strategy.

The term *community* has a broad definition. This process does involve, but is not limited to, leaving the regular classroom and classmates for functionally applied instruction or work education. However, community also means participating with classmates and other age appropriate peers in extra curricular activities, field trips and community events, and in just *hanging out* during recess, lunch and other informal school times. It is still important to maximize the amount of time spent with nondisabled peers, particularly when the social, communication, job performance and personal management skills that are needed in the community are considered.

In keeping with the concept of preparation for the next environment, the final years of high school should emphasize transition into the adult world of work or post-secondary education. Most of these years are spent in gradually increased work education situations. Ideally, the last year is spent entirely in a supported work placement. Any time spent at school is used to support the skills that are necessary for the particular work involved.

Evaluating the Personal Program Plan

As previously stated, systematic program evaluation is the evaluation of the student's personal program in terms of its quality, the number of successful practices it demonstrates and its effectiveness in meeting stated goals. The evaluation should extend well beyond the quality of the student outcomes achieved. The philosophical foundation and overall vision of the program must continually be scrutinized, as should the degree of communication and collaboration that take place.

The PPP is to be a dynamic document, changing and evolving to remain relevant, or *evergreen,* to the individual student for which it is intended. The PPP is evaluated on a continual basis. It has to be working for the student. The following guidelines can assist in evaluating the program (Friend and Cook, 1993):

- The established goals of the PPP are still the most desired for the continued growth of the student.
- The tasks set out for the student and for each memeber of the team are still appropriate.
- The resources that were identified contine to be sufficient, current and workable.
- Team member needs are being met.
- Team members feel valued.
- The stuctured outline planned is a good plan. Progress is happening.
- The assessment component is adequate. The assessment matches the outline of the structured plan and meets the goas established.

Refer to Appendix C for examples of PPPs developed in Saskatchewan.

Recommended Reading

Alper, S. (1996). An ecological approach to identifying curriculum content for inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 19-34). Needham Heights, MA: Allyn and Bacon.

British Columbia Ministry of Education: Special Education. *Students with intellectual disabilities: A resource guide for teachers*. Retrieved July 17, 2001, from http://www.bced.gov.ca/specialed.

Grenot-Scheyer, M., Jubala, K. A., Bishop, K. D., & Coots, J. J. (1996). *The inclusive school: Professional's guide*. Westminister, CA: Teacher Created Materials.

Jorgensen, C. M. (1994). Developing individualized inclusive educational programs. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 27-74). San Diego, CA: Singular Publishing Group.

Knowlton, E. (1998). Appropriate curriculum for students with developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 73-86). Austin, TX: PRO-ED, Inc.

Rainforth, B., & York-Barr, J. (1997). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Ryndak, D. L. (1996). The curriculum content identification process: Rationale and overview. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 33-60). Needham Heights, MA: Allyn and Bacon.

Stainback, S., & Stainback, W. (1996). *Inclusion: A guide for educators*. Baltimore: Paul H. Brookes Publishing Co.

Udvari-Solner, A. (1998). Adapting the curriculum. In M. Giangreco (Ed.), *Quick-guides to inclusion 2* (pp. 1-28). Baltimore: Paul H. Brookes Publishing Co.

7

Systematic Instruction

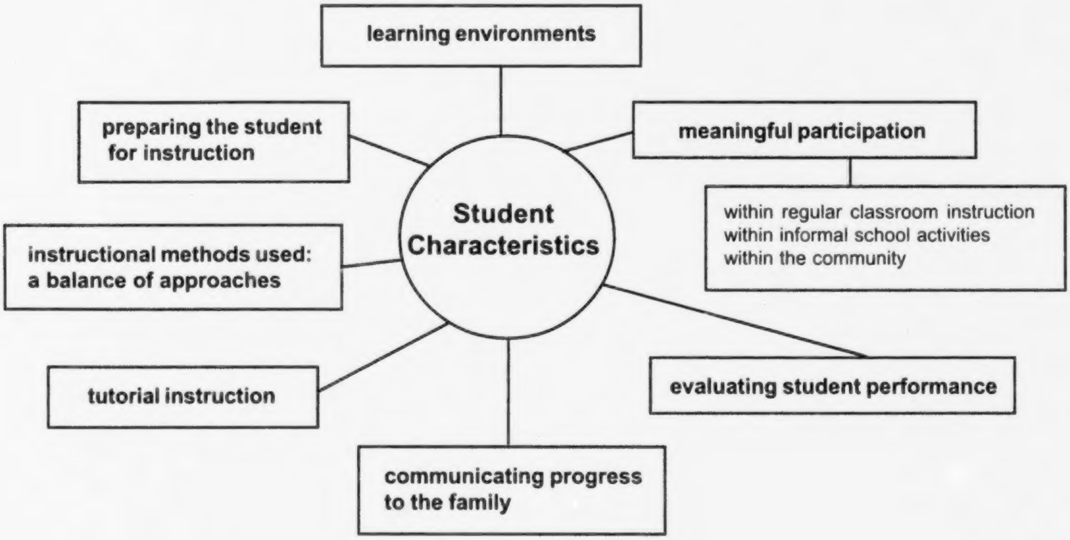
The Chapter at a Glance

- Major Considerations for Planning Systematic Instruction
- Teaching the Student with an Intellectual or Multiple Disability: A Balance of Approaches
- Establishing the Learning Environments
  - Regular Classroom Instruction
  - Informal Activities within the School
  - Tutorial Sessions
  - Community-Based Instruction
  - Organizational Schemes
- Inclusive Instruction in the Regular Classroom: Meaningful Participation
  - Multi-Level Learning and Differentiated Instruction
  - Adaptations
  - The Functional Task Analysis
  - Establishing Community
  - Professional Support
- Specific Instructional Considerations
  - Peer Involvement
  - Co-teaching
  - Visual Strategies and Supports
- Issues of Frequent Concern
  - Life Skills Instruction
  - Self-Determination
  - Developing Literacy
  - Adaptive Physical Education
- Evaluation and Reporting
  - Evaluating Student Progress
  - Reporting Progress

The ultimate success of an inclusive program depends on the systematic implementation of efficient and effective instructional strategies. It is through direct and indirect instruction that the acquisition, generalization and maintenance of targeted outcomes is realized. It is important to emphasize the notion of *systematic*. The instruction must be well planned. Also emphasized is strength in diversity, collaboration and interdependence among the educational team. Any differences in professional opinion have to be addressed as the team works toward an *only as specialized as necessary* approach.

Major Considerations for Planning Systematic Instruction

Figure 7.1. Planning Systematic Instruction


learning environments
preparing the student for instruction
meaningful participation
Student Characteristics
within regular classroom instruction
within informal school activities
within the community
instructional methods used: a balance of approaches
tutorial instruction
evaluating student performance
communicating progress to the family

Systematic instruction stems from the assessment data gathered about the student. The student's characteristics described by the assessment are analyzed in relation to the environments in which the student will participate. The main objective is to support the student to access these environments and to acheive the PPP goals in these contexts. Figure 7.1 outlines the components typically considered when designing systematic instruction. Each of the components is described in greater detail in this section or in other parts of the manual.

Student characteristics

The student's primary learning and performance characteristics are a major consideration. These include:

- the number of skills the student may acquire;
- the complexity of the skills the student may acquire;
- the number of instructional opportunities and the amount of time needed for the student to acquire skills ;
- potential forgetting and need for recoupment;
- the student's ability to transfer and generalize skills; and
- the student's ability to synthesize.

Other individual student characteristics for consideration are:

- physical ability;
- sensory processing;
- social/emotional states;
- motivation factors;
- preferences for interaction;
- creativity traits and preferences;
- learning styles; and
- multiple intelligences.

Learning environments

Consideration is also given to where the instruction will take place and how often. A wide variety of opportunities to develop the PPP goals are sought. The student's participation in regular classroom instruction, informal activities within the school and in the community are discussed. Opportunities for individual or small group tutorial sessions are also considered.

Preparing the student for instruction

The student's needs with regard to sensory processing, physical positioning, movement and communication are considered. Input from related support services such as speech-language pathology, occupational therapy, physical therapy and health care is important.

Instructional methods

The instructional methods include the system of prompts, cues and reinforcement that will be used to elicit the desired outcomes. An extensive variety and combination of direct and indirect instructional procedures may be considered.

Tutorial instruction

To learn certain concepts the student may require additional reinforcement through individual or small group tutorial instruction. The challenge for the educational team is to schedule tutorials in a manner that maximizes learning but does not adversely affect the student's status as a member of the classroom.

Establishing meaningful participation

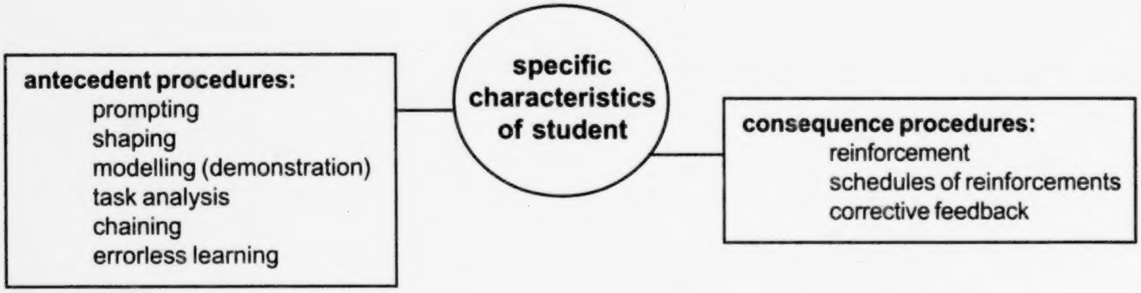
As previously stated, inclusion is much more than simply placing a student with an intellectual or multiple disability in a regular classroom in the neighbourhood school. It is important that the student's participation in each environment is meaningful. Adaptations and various other strategies that will be used to support the student's participation are examined.

Teaching the Student with an Intellectual or Multiple Disability: A Balance of Approaches

Often the student with an intellectual or multiple disability will respond to the teaching methods that are effective for students without disabilities. These methods include modelling, demonstrating, discussing and debating, practising, guided discovery, experiments, field trips, using technology, question and answer sessions, concrete manipulations, educational games, giving positive and negative examples, providing corrective feed back and individual and small group research.

If the student with an intellectual or multiple disability does not respond sufficiently to one or more of the above methods, the instructional team has to be prepared to accentuate instruction with specific techniques. These specific techniques can be organized into two broad categories: (a) *antecedent procedures,* which are procedures that occur before the student responds and are designed to increase the possibility that the desired response(s) will occur; and (b) *consequence procedures,* which occur after the student responds and are designed to reinforce correct responses and/or give corrective feedback to incorrect responses.

Figure 7.2. Instructional Techniques



All instruction can be viewed as a form of stimulus control. Stimulus control occurs when a specific response consistently occurs after the presentation of a particular stimulus. In this manner, learning can be either promoted or discouraged.

Antecedent Procedures

The most commonly used instructional procedures that occur before the student responds include prompting, shaping, modelling (demonstration), task analysis, chaining and errorless learning. Often a combination of these procedures is used.

1. Prompting

There are three basic types of prompting: (a) *auditory prompting,* which includes verbal instructions and sound signals (e.g., a timer buzzer or beeper); (b) *visual prompting* (e.g., gestures, demonstrations, hand signs, pictures, drawings, schedules, highlighted words); and (c) *physical prompting* (e.g., lightly tapping a student's arm to gain attention, hand-over-hand guidance, manual assistance).

All prompts will be gradually faded

The basic principle for prompting students is to give as little assistance as possible. Assistance is increased or decreased according to need. **The ultimate goal for all instruction is for the student to perform as independently as possible.** It is important to remember that when a specific prompt is chosen for a student, there should also be a plan for how the prompt will be gradually reduced. This process is called fading.

Deciding on the prompts to use will depend on how the student learns and on the demands of the given task. The general procedures for prompting usually include one or more of the following methods:

- **Increasing assistance,** also called *least prompts or least-to-most prompts.* The activity is begun with giving as little support as possible and increasing according to requirements.

- **Decreasing assistance,** also referred to as *most-to-least prompts*. The activity begins by giving as much information as possible and gradually decreasing as the activity proceeds.

- **Graduated guidance** involves adjusting the level of prompting from moment to moment according to the student's performance. There are four parts to this technique: (a) *full guidance*, (b) *partial guidance*, (c) *shadowing*, and (d) *spatial fading*. All four steps can be used within a single activity.

  With *full guidance*, the instructor's hands are in full contact with the student's throughout the exercise. *Partial guidance* involves the instructors's hands being in contact with the student's as much as needed. With *shadowing* the instructors hands are placed within a one or two centimetre proximity of the student's. *Spatial fading* involves moving the physical contact from the hand to wrist, then gradually to the shoulder.

Table 7.3. Recommended Procedures for Providing Guidance.

The following are recommended procedures for using physical guidance.

- Exert no more force than is needed to move the students hand in a desired direction.
- At the start of each trial, use the minimum force needed (a touch), building slowly until the students hand starts moving.
- Decrease guidance when movement begins and continue decreasing as long as movement continues.
- If movement stops, increase force gradually until it begins again.
- If the student resists or pulls away, apply just enough pressure to keep the hand motionless. When resistance ceases, gradually apply enough pressure to guide the hand.
- Provide verbal praise during guidance only when the student is actively participating; not when student is resistant or passive.
- Follow the exercise through to completion; do not quit or interrupt before the final step.
- Use either shadowing or spatial fading once guidance has been reduced to a touch.

A time delay provides opportunity for independent response

- **Time delay.** It is also important that the student is given a specific amount of time to respond after a prompt is given. Providing a delay before giving a prompt gives the student an opportunity to form an independent response, and prevents the development of patterned responses.

The most commonly used methods are:

- Constant time delay

  During an activity the initial prompts are given at the same time as the material/concept to be taught is presented (zero-second delay, also called *simultaneous prompting*). All other prompts are given at a predetermined delay interval (e.g., 5 seconds).

  For example, a student is required to read the word *mom*. Initially, the student is shown a card on which *mom* is written. Simultaneous to showing the student the card the instructor prompts the student by saying, "This word is 'mom', say Mom." After a few trials the instructor shows the card then waits 5 seconds before giving the prompt.

- Progressive time delay

  During an activity the initial prompts are given at the same time as the material/concept to be taught (zero-second delay). As the exercise progresses, the amount of time given to respond to the material/concept is gradually increased (e.g., gradual increments of 2 seconds).

2. Shaping

Shaping involves accepting approximations of a desired response, ultimately leading the student closer and closer to the complete desired response. Shaping is a very widely used practice, and occurs across classrooms, grade levels and extra curricular activities. Accepting a student's initial mispronunciations of words that she/he is learning to speak ("ha", then "hap", then "happy"; accepting attempts to decode words as reading is being learned; accepting invented spelling that approximates correct spelling and accepting attempts at motor planning tasks are examples of shaping.

Although it is important to encourage attempts at tasks it is also necessary for instructors to be aware of the progress a student is making with each goal. It is important not to reinforce earlier approximations. For example, the student who has progressed to saying "hap" should not be praised for saying "ha".

The possibility of student regression should be acknowledged, however. If, after a time, the student is not able to respond with a previously attained approximation it would be appropriate to reward a previous level. For example; after three days of not using "hap", drop back to reinforcing "ha".

3. Modelling

Modelling is demonstrating the desired response. It provides a *picture* of what the desired response looks like. Modelling can be used alone or with prompting.

The basic procedure for using modelling is:

- Get the student's attention.
- Ask the student to demonstrate the desired behaviour.
- If the student cannot perform the behaviour, model it.
- Have the student try to imitate the model.
- Reinforce appropriate imitation (it need not be perfect).

Note: If the student does not begin to imitate, use prompts to get the student started. Do not expect a perfect performance at first. Reinforce successively better attempts to imitate until the actual behaviour is performed.

Cognitive modelling is the process of self-talk paired with modelling. The basic process for cognitive modelling is:

- The instructor states the steps of a procedure while modeling it.
- The student and instructor then verbalize the steps as the student performs the routine with the instructor's assistance (verbal and physical prompting).
- The student goes through the routine saying the steps aloud while the instructor fades any verbal and/or physical prompts.
- The student goes through the routine unassisted, whispering the steps.

4. Task analysis

Task analysis is the process of breaking down a specific task into a sequence of component steps. Students with an intellectual or multiple disability often require numerous opportunities to learn a desired skill. It may be necessary to break down the steps into small skills that are taught individually. The smaller tasks may then be more manageable.

5. Chaining

Chaining is often used in conjunction with task analysis. Chaining involves the sequential linking of the smaller tasks identified in the task analysis, and gradually building the competence to complete the entire task.

Forward chaining involves beginning with the first step of the analyzed task and gradually learning each step, working forward toward the task completion.

Backward chaining involves learning the last step first, then the step prior to the last step, and so on. Each newly learned step is *completed in a forward sequence*. For example, in a 5-step process the student is initially taught step 5. When asked to perform the task the student is assisted through steps 1 to 4, and does step 5 independently. The student is then taught step 4. When asked to perform the task the student is assisted through steps 1 to 3, then does steps 4 and 5 independently.

Backward chaining is often the process of choice because it can provide the student with the feeling of task completion.

6. Errorless learning

With errorless learning the student is presented with tasks that can be successfully completed, or guided through tasks by using sufficient prompts so that success can be achieved.

Consequence Procedures

The most commonly used instructional procedures that occur after the student responds include reinforcement and corrective feedback.

1. Reinforcement: Responding to Correct Behaviour

The purpose of reinforcement is to motivate and maintain responses

The two most basic rules about reinforcement are:

- behaviour that is followed by a pleasant experience is more likely to occur again; and
- behaviour that is followed by an unpleasant experience is less likely to occur again (Hingsberger, 1995).

The purpose of reinforcement is to motivate and maintain desired responses by presenting a consequence (a response) that encourages and rewards the appropriate performance. If a student will work to attain a reinforcement and the desired response is maintained or increased because of it, then the reinforcement is considered effective.

When choosing a reinforcement procedure there are three critical points to consider: (a) reinforcement is unique to the individual; what works for one student will not necessarily work for another; (b) reinforcement is dynamic and can change from moment to moment; and (c) external and contrived reinforcements must be eventually faded to natural and self-reinforcement (Downing, 1996).

There are four types of reinforcers: edible, physical, material and social. The choice of reinforcers must be made with care as there are advantages and disadvantages to each type of reinforcer at each stage of learning.

- **Edible reinforcers** can be powerful. They are often used when starting to teach a new activity or when working with a student who is new to the instructor. It is important to have a large variety of reinforcers to prevent loss of interest. When a student no longer responds to a reinforcer, satiation has occurred. This is usually a temporary effect and occurs after a high rate of reinforcement using the same reinforcer. To reduce the effects of satiation it helps to increase the number of edibles the student will work for and to eventually switch the student to other types of reinforcers.

Physical, material and edible reinforcers should always be paired with a social reinforcer

- **Physical reinforcers** involve bodily contacts such as a pat on the shoulder or a *high five*.
- **Material reinforcers** are activities or objects given to a student after successfully completing an activity.
- **Social reinforcers** involve praise, smiles, attention and friendly remarks. They are the most naturally occuring. They are also the most convenient to use and most acceptable, making students less dependent on outside objects and sources to maintain and increase performance. Social reinforcers should be delivered every time another type of reinforcer is used.

Selecting reinforcers requires careful thought and planning

The selection of reinforcers takes careful thought and planning. The basic guidelines for selecting reinforcers are as follows:

- Reinforcers should be easy or convenient to deliver.
- Reinforcers should not have the potential to interfere with other scheduled activities. For example do not promise a walk when the task is complete if this will coincide with lunch.
- To assure the effectiveness of reinforcers, monitor their use and make sure that others working with the student know what reinforcers you are using. Avoid using the same reinforcers for several different activities, as this will diminish their effect. For example, if the student gets the same reinforcer from two other staff before coming to you the reinforcer may not be as effective.
- In some cases it is important to change the reinforcer on a regular basis. If this is not possible, give smaller amounts of the same reinforcer.

- When a student is acquiring a new behaviour, reinforcers should immediately follow the desired behaviour, so the student clearly associates the reinforcer with the behaviour. After the student has acquired the behaviour one of several different schedules of reinforcement is used.

2. Schedules of Reinforcement

Continuous reinforcement is reinforcement given each time a desired response is correctly performed. It promotes the fastest acquisition of behaviour. This schedule is used when beginning to teach a new response or when frequency of behaviour is low.

Fixed ratio schedule of reinforcement is a more natural schedule. With this schedule reinforcers are used at fixed intervials (e.g., after every 5th response). This schedule helps to generate a high frequency of responding. Students will often pause in responding after receiving the reinforcement.

Variable ratio schedule of reinforcement is the most natural schedule of reinforcement because the reinforcement is given randomly. Reinforcement may be given after a varying number of responses; for example, after the 5th, then the 8th, then the 11th, then the 17th. The student cannot predict when reinforcement will occur, so there are fewer pauses and delays in performance. This schedule usually promotes a high rate of responding.

Move the student to more natural reinforcement

If you have used artifical reinforcers and a continuous schedule of reinforcement to help a student acquire a behaviour, it is important to help move the student to more natural reinforcers and schedules of reinforcement by:

- changing the schedule of reinforcement from continuous to one nearer the schedule that occurs in the environment where the behaviour will be used;
- linking behaviours to activities the student already finds reinforcing, thus taking advantage of sources of reinforcement that already exist. For example, Lee loved to listen to the Walkman. When he completed an assignment ahead of time, he was allowed to listen to the Walkman for 5 minutes; and
- always pairing a social reinforcer with more tangible reinforcers, then gradually fading the tangible reinforcers.

3. Corrective feedback

When a student provides an incorrect or inappropriate response, corrective feedback is necessary so that the response can be changed to what is desired. Corrective feedback is given through verbally stating the mistake that was made and asking the student to try again, pointing out where the mistake was made, providing the correct response, and/or guiding the correct response. Corrective feedback can also be given through task interruption and physical guidance. In this manner, corrective feedback tends to be similar to the antecedent support (guidance) that was previously described.

It is important that all correct feedback be given in a positive and supportive tone and manner. It is also important that the **least amount of assistance possible is given.**

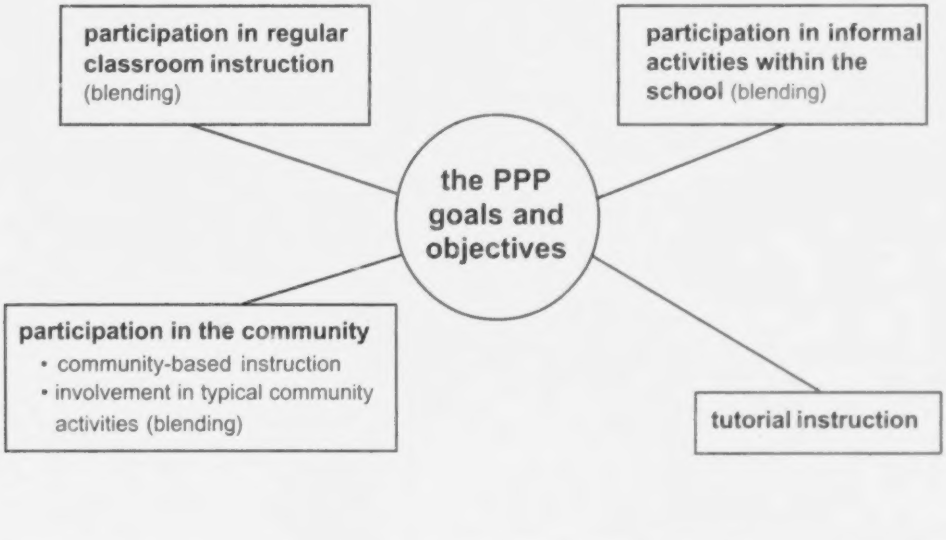
Corrective feedback is given immediately after the incorrect response, or by actually interrupting the incorrect procedure. This will increase the probability of the student being able to distinguish between appropriate and inappropriate responses. It will also reduce the risk of inappropriate behaviours becoming patterned responses.

Establishing the Learning Environments

Once the PPP goals have been established it is then necessary to implement the instructional component of the process. Organizing instruction begins by identifying where the teaching will take place. An inclusive program is typically comprised of four basic instructional contexts:

- participation in regular classroom instruction;
- participation in informal activities/interaction within the school;
- participation in community activities; and
- tutorial instruction (see Figure 7.4).

Figure 7.4. Establishing Learning Environments


participation in regular classroom instruction (blending)
participation in informal activities within the school (blending)
the PPP goals and objectives
participation in the community
• community-based instruction
• involvement in typical community activities (blending)
tutorial instruction

Through participation in the above four environments on a regular and frequent basis the student attempts to develop the goals and objectives set out in the PPP. It is the educational team's task to establish opportunities for the student to participate in each of these environments. It is also the educational team's task to structure direct and indirect learning within each environment.

Blending is providing opportunities within a variety of contexts

The process of blending is central to structuring learning opportunities within a variety of contexts. Blending implies the development of individual PPP goals through participation in typical activities in the classroom, school and community. For example, through the student's participation in a regular classroom small group writing lesson, the student has the opportunity to develop writing skills and vocabulary (academic), skills for organizing ideas (cognitive), skills for organizing materials (personal management), skills for concentration, persistence to task completion (job performance), skills for working with others (social skills) and skills for presenting a final product (communication). A student's participation in informal mingling at recess or between classes provides the opportunity to develop social skills, communication skills, leisure skills, personal management (an awareness of grooming and fashion trends) and adaptive problem solving.

To maximize opportunities for blending, it is necessary that each member of the educational team have a thorough knowledge of the student's PPP. It is also necessary for the team to view student participation in a very broad and integrative manner, and to consider each opportunity to participate with regard to all areas of development suggested in the PPP.

The first step is to identify opportunities within the regular education curricula and regular education environments to develop the student's PPP objectives.

Participation in Regular Classroom Instruction

There are many parallels between regular education curricula and the student's PPP

The initial process in blending PPP goals with regular education activities is analyzing the parallels between regular and special education. Students in regular education take courses that emphasize skills that are also typically emphasized in PPPs for students with an intellectual or multiple disability. The following are examples of such similarities:

- courses such as Home Economics that stress home management skills;
- courses such as Health Education and Life Transitions that relay social-sexual information;
- courses such as Mathematics that teach consumer skills;

- courses such as Work Experience Education, Industrial Arts and Practical and Applied Arts that emphasize job performance skills;
- courses such as Physical Education and Wellness that emphasize skills used in leisure time;
- most courses enhance reading and writing skills; and
- many courses enhance the value of participation and contribution to a group project or community event.

The regular education experience also offers multiple opportunities for development of what has traditionally been termed *life skills*; that is domestic skills, vocational skills, recreation and leisure skills and community access and participation skills.

Regular curricula and settings provide opportunities to practise skills by extending the PPP

A typical day in a regular classroom affords many opportunities for the student with an intellectual or multiple disability to develop the goals stated in his/her PPP. As previously mentioned, it is important for all members of the educational team to refer frequently to the PPP document and to have a clear understanding of what is stated. The team is then able to identify the various opportunities to practise the targeted PPP skills across a variety of typical activities and contexts. Each part of the regular schedule has to be addressed and evaluated for possibilities.

Analyzing the schedule includes both the regular education content and the regular education settings. The educational content is examined for the skills required in the subject matter and the interaction that will take place among the students while the material is being studied. Adaptations to support the student's participation in the educational content are also considered. The educational settings are appraised for their physical components and, if necessary, adaptations to assist access are considered.

Participation in Informal Activities within the School

In addition to regular education course work, the informal environments provided by activities within the school offer extended opportunities for participation and growth in social skills, communication, leisure and personal management. The key to taking advantage of these opportunities is to closely monitor the student's participation and to offer structure and support as necessary.

Tutorial Instruction

Tutorial instruction provides reinforcement of skills and works toward goals when there is no parallel to the regular curriculum or opportunity to blend

Students with intellectual or multiple disabilities also have some unique developmental needs that are not found embedded in, or parallel to, the regular curriculum. Self-help skills, specific social skill development and self-determination skills may not be found in regular curricula. Toileting, eating, and dressing are considered the most critical self-help skills. Usually skills such as these have to be taught and reinforced systematically. Self-determination and specific social skills must also be taught in a deliberate manner.

It may also be necessary to use individual or small group tutorial to reinforce academic concepts that are being emphasized in the regular curricula and/or to practise skills that are required for participation. Functional reading and math development, teaching specific life skills and introducing and practising social skills are common examples of effective tutorial use.

It is entirely possible to teach skills through a tutorial format and still maintain an inclusive educational environment for the student. The challenge for educational teams is to find the appropriate times and places for this instruction to take place, yet still support optimum participation with classroom peers.

Community-Based Instruction

Community-based instruction (CBI) is an important component of all PPPs and a major consideration for long-term planning. School settings outside of the classroom provide many naturally occurring opportunities for functional reading, functional mathematics, adaptive problem solving, job performance, communication and social interaction. Many skills included in the domestic, vocational, personal management, community access and leisure domains occur most naturally in community environments.

Organizing CBI requires the following considerations:

- Establish settings for instruction.
- Determine the amount of time allotted. It is important that time spent with age-appropriate peers is maximized. As previously stated, the time spent in CBI increases with the student's age. Ideally it progresses to a supported full time work placement during the last one or two years of high school.
- Establish shared responsibilities. Well organized team work and collaboration is required. Family involvement, especially with reinforcing the skills in community settings, is very beneficial.
- Arrange transportation.
- Ensure safety.

Community-based instruction can also take place informally and indirectly. Some skills require optimum opportunity to practise in natural contexts (e.g., social skills, communication skills and personal management). Thus it is important that students with an intellectual or multiple disability spend time in the community and participate in typical activities with age-appropriate peers. Participation in school extra curricular activities, community sports and leisure programs, library programs, church activities and shopping trips is highly encouraged. Organized support for this participation (e.g., buddy programs, Circle of Friends) may be necessary.

Organizational Schemes

It is very helpful if all members of the educational team have a clear and consistent *big picture* of how instruction is organized. To assist in coordinating the analysis, a concrete organizational scheme is recommended. This is especially important within a collaborative team effort that includes several people. It is also beneficial if the scheme can be visualized, for all to see.

Matrices can be used to organize the program

The matrix, or grid, is a very common way to organize. The grid format allows a team to easily manipulate several factors for consideration into a concisely organized blueprint. Educational teams often use a series of matrices, at various points and stages of instruction. A matrix can be used to establish a general organizational scheme (See Figure 7.5) and/or it can be used to organize the participation for a student's entire school day.

Figure 7.5. An Organizational Structure

		The Areas of Development								
The Instructional Environments		cognitive	academic	personal management	communication	social skills	leisure skills	job performance	(visual efficiency)	(orientation & mobility)
	regular classroom instruction									
	informal activities/ interaction within the school									
	community									
	tutorial									

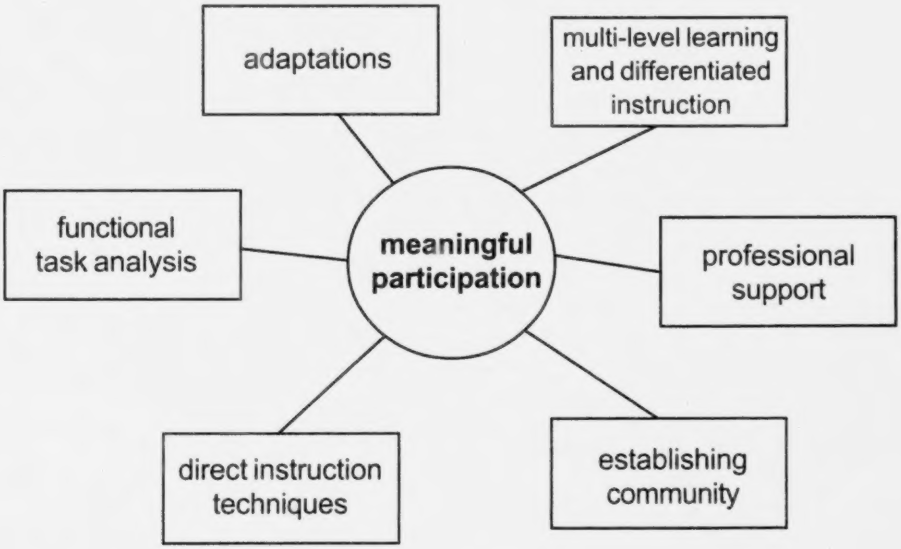
Schedules are used to organize the day-to-day program

Schedules are beneficial for organizing a student's specific day-to-day, lesson-to-lesson participation, and coordinating the support that may be required to assist participation. Schedules are particularly helpful for organizing instruction and applying the personal program plan where there is no parallel to the regular curriculum. Tutorial instruction and community-based instruction, for example, can be organized through analyzing the regular classroom schedule and choosing optimal instructional opportunities throughout the day.

Inclusive Instruction Within the Regular Classroom: Meaningful Participation

The key to successful inclusive instruction is to make participation in regular classroom activities a meaningful experience. Meaningfulness can be accomplished through multi-level learning and differentiated instruction, using a variety of adaptations, application of the functional task analysis, application of the techniques for direct instruction that have been previously described and establishing community. It is also important that the core educational team receive professional support from outside sources.

Figure 7.6. Meaningful Participation



Multi-level Learning and Differentiated Instruction: Adapting Goals and Objectives

If the student with an intellectual or multiple disability is to be included within the classroom's academic and social structures, **it is necessary that the student is not doing something entirely different from the rest of the class on a regular and frequent basis.**

Although a discrepancy in academic ability will typically exist, the student with an intellectual or multiple disability can be included in regular classroom instruction through embracing the concepts of multi-level learning and differentiated instruction. Multi-level learning provides the necessary access to, and participation in learning for all students in the class. Participation begins by considering the objectives established in the student's PPP and adapting regular classroom curricula to match the PPP objectives.

The regular curriculum can be differentiated through:

- teaching the same curriculum but with a less complex focus and objective. For example, from a larger unit in Science, the student learns one or two of the more general concepts being examined.
- addressing the same content at a different conceptual level. For example, when the class is engaged in creative writing, the student is learning to form letters and/or is writing his/her name, a list of spelling words or a grocery list.
- addressing the same content but allowing a different method for demonstrating the knowledge gained. For example, when the class is doing a lengthy written report, the student presents his/her research through pictures and/or verbally.
- decreasing the expected amount to be learned. For example, the student does the first three parts of a ten part Math assignment.
- decreasing the expected rate of learning.
- focusing on content that has functional application to the routines of life. For example, while the class is working on decimals, the student focuses on using a calculator to apply decimal concepts to dollars and cents, and computing the total cost of a grocery list.
- a combination of one or more of the above.

1. Guidelines for Establishing Multi-Level Learning

When establishing multi-level learning and differentiated instruction within the classroom, the following guidelines can be helpful

- **Go beyond the core academic activity, and consider a wide range of multi-level learning outcomes for the student.** There are a wide range of learning outcomes for the student with an intellectual or multiple disability beyond academic concepts within each area of the regular curriculum. Each area of the student's PPP can be applied through participating in regular classroom academic activities. Academic tasks can provide students with opportunities to practise job performance skills (e.g., preparing for the task, monitoring speed and quality, persistence, completing the task as directed), cognitive problem solving and to use social and communication skills.

- **Design learning experiences to reflect multi-level goals.** Activities that are active and constructivist in nature tend to allow the opportunity for more differentiated learning. Open-ended questions for research, cooperative learning, peer partnering, holistic learning, thematic teaching units, multi-aged grouping, games, simulations, role plays, active experiments and concrete applications are examples of activities in which the student can be engaged in constructing his/her learning.
- **Know the student's general learning and performance characteristics and learning style.** Information regarding the student's learning profile is attained through the assessment.
- **Use teaching methods that will reach the student.** It is necessary to be aware of a wide variety of techniques for direct and indirect instruction. As previously mentioned, the student with an intellectual or multiple disability often will respond to the teaching methods that are effective for students without disability.

  If the student does not respond to general classroom procedures, the instructional team has to be prepared to use specific techniques.
- **Use creative problem solving to address learning outcomes in classroom settings.** Once the classroom activity has been identified, the student's participation in the lesson is then discussed. Many formats to guide this process have been made available (see Appendix D).

A common set of questions is:

- Can the student participate in this activity like all other students?
- Can the student participate in this activity, but with adapted materials or expectations? For example, doing fewer math problems; reading from a prepared summary rather than from a novel or presenting a picture report rather than a written one.
- Can the student participate in this activity, with emphasis on *blended* skills from other areas of development suggested in the PPP? For example, choice making, communication skills, standing in a support frame, work habits or small group social skills.
- Can the student be with the group, but be working on an activity that fulfills a different purpose? For example, using a switch to activate a tape recorder/computer during reading/computer class.
- Should the student be working in class on a separate task that is related to the priorities stated in the PPP? For example, a tutorial session on practising using a communication board, or working on functional math or reading skills.
- Should the student be working out of class on a activity related to the priorities stated in the PPP? For example, a tutorial session on social skill role plays, community-based education or work education.

These questions are key to the student's development and to his/her participation with age appropriate peers. It is important to long term development that meaningful participation with peers is maximized. All time spent away from peers (e.g., in tutorial or community-based instruction) has to be justified.

- **Ensure sufficient learning opportunities.** Most students require multiple opportunities to practise before a skill is properly learned. Students also need to experience consistency in the way a skill is taught or reinforced.
- **Use assessment data to make future instructional decisions.** The student's progress in the skill being taught and the impact the skill has on the student's quality of life guide the assessment. Possible questions to ask are:
  - What level of accuracy is achieved?
  - How frequently is the skill used?
  - What is the rate at which the task is accomplished?
  - What is the quality of performance?
  - What is the length of sustained attention to task?
  - How complex is the task?
  - What is the general impact on the student's quality of life?

Adaptations

The purpose of an adaptation is to enable the student with an intellectual or multiple disability to participate with his/her non-disabled peers. The adaptation capitalizes on the student's strengths and/or compensates for weaknesses. Adaptations also encourage independence. All adaptations are chosen specific to the needs of the individual student.

1. Types and Examples of Adaptations

The following are examples of the adaptations more commonly used in inclusive settings.

Adapting the Goals

Smaller amounts of work

- simplify content
- combine/group
- condense
- discuss with others

Easier Questions

Same Work Different Concept

- addition instead of multiplication
- read highlighted words only

General

- high interest low vocabulary books
- open-ended activities
- remove or modify time constraints

Adapting the Teacher's Presentation

- use of hand signals/sign language
- repetition with simplified instructions
- changing volume and rate of speech (e.g., clearly/loudly/quietly/slowly)
- written instructions
- asking students to repeat instructions
- pictures
- concrete materials
- audiotape
- overhead
- multi-sensory examples
- overhead
- peer problem solving (How can _______ participate?)
- providing structured overview of the lesson – students fill in blanks
- involving students in presentation
- modifying pace
- photocoping information/notes
- highlighting key information in test and student just does the highlighted parts
- separating visual and auditory information
- standing close to student
- breaking information into steps
- printing instead of writing
- demonstrations/model
- have a peer repeat instruction
- video for later review
- different colored chalk/pens
- always putting directions in same place
- paraprofessional following through with presentation
- concept mapping, brainstorming
- acting out instructions
- providing additional time to preview materials, complete tasks
- using high contrast materials if visually impaired
- completing first example with student

(continued)

Adapting the Evaluation

Simple evaluation strategies

- set small goals
- do spot checks
- have special education teacher assist
- keep work samples
- use video

Student evaluation

- self-evaluation
- demonstrate knowledge
- evaluate PPP progress
- objective observer
- use different criteria
- peer evaluation
- has there been improvement?

Tests

- have someone scribe
- read test questions
- draw pictures
- curriculum-based assessment
- open book
- take test in quiet room
- provide space
- oral test
- use calculator
- demonstrate knowledge
- take home
- concept maps, webbing
- no time limit

Assistive Technology

Assistive technology can also be considered an adaptation.

- positioning
- mobility (e.g., electric wheelchair)
- computer access
- hearing and listening (e.g., personal FM systems)
- recreation and leisure (e.g., computer games)
- augmentative communication systems
- environmental control
- seeing or looking (e.g., magnifiers, close circuit television)
- self-care and management

Adapting the Materials

- dictating to scribe
- building models
- enlarge/shrink materials
- use calculator (e.g., talking, size)
- tape recording
- cutting pictures from magazine
- using computer
- using overlays on textbook pages

Adapting Page Set-Up

- line indicators
- different types of paper (e.g., graph, midline)
- highlight or colour code (e.g., directions, key words)
- less information on a page
- sections on paper (e.g., fold, lines)
- additional white spaces on pages
- covering parts of work sheet
- high contrast materials

(continued)

Adapting the Environment

- position for inclusion
- sit away from noise (e.g., window, hall)
- sit by teacher
- consider student's sensitivity
- sit with back to window
- change lighting if necessary

Seating at Desk

- wheelchair accessible desk
- flip-up/tilt-top desk
- lap-top desk
- table instead of desk

Co-operative grouping

Adapting Assistance

Peer Assistance

- model
- scribe
- organization assistant
- reader

Paraprofessional

- assigned to school or class
- facilitates ownership by teacher

Special Education Teacher

- problem solve with teacher
- assist with program planning
- work with teacher in classroom

Adapted from Cranston, 1993.

Additional ideas for instructional adaptations can be found in the following resources:

Downing, J., (1996). *Including students with severe and multiple disabilities in typical classrooms.* Baltimore: Paul H. Brookes Publishing Co.

Hammeken, P., (1996). *An essential guide for the paraprofessional,* Port Chester, NY: National Professional Resources Inc.

2. Choosing an Adaptation

When choosing an adaptation for a student, there are certain criteria that should be met.

- It is understood that some adaptations are chosen for the student's immediate need, and will be used only temporarily. It is preferred, however, that an adaptation be chosen for its long-term value and that it can be usable as the student matures.
- An adaptation should be portable; that is, usable across environments and activities at home, in the community and at school.
- An adaptation should be age appropriate.
- An adaptation should be durable and withstand frequent use.
- An adaptation should be as non intrusive as possible during the flow of activities.
- An adaptation should be cost appropriate.

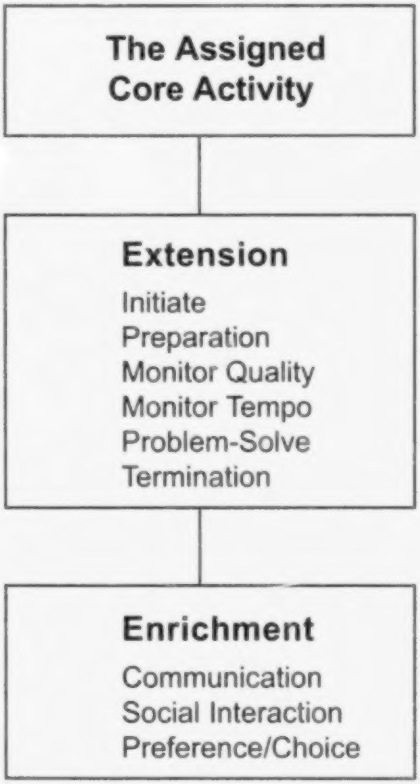
- An adaptation should be readily accessible. Preference is given to adaptations that:
    - enable the student to participate in the same activity as non-disabled peers;
    - adapt the environment before adapting the curriculum;
    - enable the student to participate as independently as possible; and
    - facilitate inclusion rather than segregation.

3. Organizational Schemes

Adaptations can be determined based on PPP content, from general curriculum content and from individual lesson plans. Keeping track of the many adaptations that may be necessary can at times be confusing. An organizational system or workplan may be helpful in this regard (see Appendix E).

The Functional Task Analysis

Figure 7.7. Functional Task Analysis



Brown, F., Evans, I., Weed, K., and Owen, V. (as cited in Saskatchewan Education, 1989).

Every task that is assigned to and carried out by a student with an intellectual or multiple disability can be meaningful if the instructors (teachers and paraprofessionals) plan and facilitate the task through a functional task analysis (see Figure 7.7). In addition to the core activities, a functional analysis attempts to extend and enrich the task through the parameters described below. The procedures can be followed independently or prompted by the instructor. If prompting is used, it is important that a plan is made to fade the assistance and progress toward independence.

The core activity of the task is extended through initiating, preparation, monitoring quality and tempo, problem solving and termination. The following examples illustrate extension in a typical social studies and journal activity.

1. Initiating

The student listens to directions from the instructor or observes natural cues in the environment.

Examples:

- Social Studies (SS):

  The teacher assigns the class a mapping exercise. On a map provided, the students are to distinguish the provinces of Canada by labelling them on the map, and locate and plot the capital cities of each province according to their longitude and latitude co-ordinates. The student carefully listens to the teacher for instructions and observes the other students for what they are doing regarding preparation for the task.

- Journal Writing (JW):

  The teacher instructs the class to recount a field trip that they were on the previous day. The student carefully listens to the teacher for instructions and observes the other students for what they are doing regarding preparation for the task.

2. Preparation

The student gets ready to work by assembling whatever materials are necessary, preparing to receive further instructions and beginning the task as instructed.

Examples:

SS: The student gathers the map, straight edge and pencil.

JW: The student gathers the journal and pen.

3. Monitoring quality

The student frequently checks her/his work to see if it is being done well, and according to the instructions given.

Examples:

- SS: Is each province neatly labelled? Is each capital city labelled and spelled correctly? Is each capital city correctly plotted? Is everything neat?
- JW: Have all the major areas of detail been covered; sequence of events, information learned, personal feelings and emotions about the event, etc.? Has enough detail been written? What about spelling, grammar, and overall neatness?

4. Monitoring Tempo

The student checks to make sure she/he is working fast enough and that a certain amount of work will be completed within a reasonable amount of time.

5. Problem Solving

Should a problem be encountered along the way the student thinks of ways in which it may be solved.

Examples:

- SS: The student can't remember the names of some of the capital cities, so uses an atlas to assist.
- JW: The student can't remember everything that happened, so asks a peer for assistance.

6. Appropriately Terminating

The student realizes when the task has been completed, according to the instructions given.

Examples:

- SS: Are all provinces labelled? Does each province have a capital city plotted?
- JW: Have all events in the field trip been covered? Have I given a good opinion?

The task can be enriched further through communicating, social interaction and making choices

1. **Communicating**

   The student talks to the instructors, parents and peers about the tasks, describing the sequence of steps involved, the strategies that may be used, how problems may be solved and whether or not it is enjoyable.

2. **Social Interaction**

   The student may be working with a buddy or in a cooperative group.

3. **Preference/choice**

   Whenever possible, the student demonstrates preferences and makes independent choices regarding the task.

   Examples:

   - SS: The student chooses the order in which she/he will label the provinces.
   - JW: The student forms a personal opinion about her/his like and dislikes with regard to the field trip.

Establishing Community

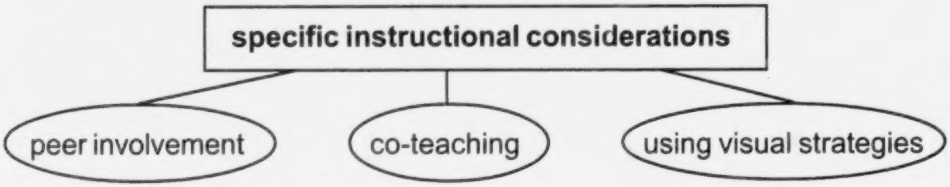
A genuine feeling of community is crucial to learning for all students in any classroom. To be connected and to feel a sense of belonging in a regular classroom is especially important for students with intellectual or multiple disabilities. It is important that the educational team is aware of this importance and that systematic steps are taken to maximize community within the classroom (refer to *Chapter 9: Developing Social Skills)*.

Professional Support

It is important that the core educational team invite and remain open to suggestions from the extended team members (e.g., consultants, speech-language pathologists, occupational therapists, physical therapists, medical personnel) and continue to seek information from other sources other (e.g., professional reading, workshops and conferences).

Specific Instructional Considerations

Figure 7.8. Instructional Considerations



Peer Involvement

Central to the concept of the inclusion of students with an intellectual or multiple disability is their ongoing participation with all classmates. Students with intellectual or multiple disabilities often have a very sparse social network and system of social support. Most of the support is comprised of adults and family. Certainly, the student would benefit from greater opportunity to interact with age appropriate peers on a regular basis.

Throughout the wealth of literature that describes the inclusive process, perhaps the most highly recommended practice is the use of peers to support the student. When considering peer involvement attention should be given to (a) the various roles peers can play, (b) collaborative learning approaches, (c) ways in which peers can be assisted in understanding intellectual and multiple disabilities, and (d) ideas for recruiting.

1. Roles Peers Can Play

- Conceivably the most important role that a peer can play is that of a true friend.
- Instructional support is another important role. *Peer power* can be used in an abundance of collaborative learning approaches, as well as offering opinion and assistance regarding adaptations.
- Social support, in the form of encouraging social interaction and communication and clarifying communicative attempts, is another purpose. Peer buddies are an excellent way of assisting a student to build friendships and experience new activities, during and after school hours.
- Acting as a natural support for students with behaviour difficulties can also be effective.

- Assisting with the student's mobility and/or organization of materials is another method.
- Peers can serve as an effective role model, particularly with regard to social-behavioural and communication skills.
- Peers can serve as advocates for the student and be part of instruction and/or transition planning.

2. *Peer Power*: Collaborative Learning Approaches

A variety of collaborative learning approaches can be used to effectively facilitate participation of the student with an intellectual or multiple disability in regular classroom activities. Examples of these approaches are listed below.

- Paired learning - pairs work together to assist each other in completing activities.
- Peer modelling - peer's help teach specific skills.
- Peer support networks - peers help those who require social and/or physical assistance in the classroom.
- Process partners - peers check for understanding of concepts.
- Paired reading - the student elicits a peer's help with reading material that may be difficult.
- Companion reading - partners take turn reading to each other.
- Response partners - during class instruction, when the teacher asks a question, partners work together to discuss the correct answer.
- Partner conferencing - during writing projects, the partners share and edit the writing drafts.
- On-task partner - during classroom instruction the partners check each other to ensure on-task behaviour.
- Peer tutor - a formal program for peer instruction which involves the tutor being specifically trained to: establish rapport, present a lesson, maintain the student's attention, give clear instructions, give direct instruction (e.g., prompting, guidance, modelling, shaping), provide reinforcement and corrective feedback, maintain on-task behaviour, pace the lesson, evaluate student performance and keep records.
- Cooperative learning - Cooperative learning involves students actively assisting each other during the learning process. Cooperative learning is a set of specific learning strategies that promote heterogeneous student grouping and interaction through positive interdependence. In a broader sense it is a concept for general classroom management and philosophical direction.

An important consideration when planning cooperative learning is the nature of how a student with an intellectual or multiple disability interacts in group learning situations. Low-achieving students are often passive in group situations; high-achieving students often assume a dominant role. Opportunity to participate by all group members is maximized if the task is open-ended and nonroutine. For these tasks, interaction can include:

- asking questions;
- making suggestions;
- listening;
- agreeing;
- criticizing; and
- explaining (Hughes et al., 1999).

Additional information is provided in the following resources:

Putnam, J., (1998). *Cooperative learning and strategies for inclusion. Celebrating diversity in the classroom.* Baltimore: Paul H. Brookes Publishing Co.

Kagen, S., (1992). *Cooperative learning.* San Jaun Capestrano, CA: Resources for Leaders.

Johnson, D., Johnson, R., & Holuber, E. (1994). *Cooperative learning in the classroom.* Alexandria, VA: Association for Supervision and Curriculum.

Grineski, S., (1996). *Cooperative learning in physical education.* Champaign, Il: Human Kinetics.

Stahl, R. J. (1995). *Cooperative learning in language arts: A handbook for teachers.* Menpo Park, CA: Innovative Learning Publications.

3. Helping Peers Understand Intellectual and Multiple Disability

The education team cannot assume that all peers can or will interact with students with intellectual or multiple disabilities in a natural and effective manner. Most peers require preparation and need to have their questions and concerns accommodated. Typically, peers require information and preparation in:

- Identification and understanding of the student's particular areas of strength.
- Awareness that communication can take place in many ways other than through speech. It is important that peers know and accept the student's particular form of communication.

- Skills for social/communicative interaction. It is important that peers feel and act comfortably and have some methods for sustaining interaction. It is also important that the manner of interaction is respectful and age appropriate.
- Knowledge about particular unexpected, and perhaps undesired, behaviours that might be encountered. Peers are taught the reason for these behaviours and the appropriate reaction to them. It is especially important that peers be instructed how to respond to aggression if this is a possible issue. Responding to aggression with aggression will only aggravate the situation.
- Understanding accommodations for physical disabilities. Knowledge about the particular disability, the adaptations and physical supports being used, the limitations in mobility and how to present items is beneficial to peer interaction.
- Understanding the specific learning and performance characteristics of the student and the means and methods for effective academic involvement. The complexity and amount of learning and work production that can be expected is explained. Peer tutoring techniques and use of adaptations are also defined.
- Understanding unique sensory loss. A severe sight or hearing loss can significantly alter the manner in which one interacts. Peers will have to be given information regarding the effect of the particular sensory loss and information about how to interact with and support the student.
- Enhancing the role and image. It is important that the students with intellectual or multiple disabilities are not always the recipient of peer support. It is important that the student contribute to the situation whenever possible and that independent behaviour is fostered.

4. Recruiting Peers

There are a variety of methods for peer support recruitment for activities outside of the classroom and the school. Students can be approached individually or a class presentation can be made. Important considerations are that it should be voluntary and that it should never be used as punishment.

5. The Advantage of Working With Peers

Perhaps the most prominent advantage of peer involvement is that the learning involved is reciprocal. Everybody can benefit from the process.

- The student with an intellectual disability benefits through increased participation in activities, age-appropriate role models, development of social and communication skills and feelings of connectedness and belonging.
- Nondisabled peers benefit through increased awareness and acceptance, a deeper sense of social justice, increased self-esteem and knowledge of self.
- Special education teachers benefit through increased opportunities to become connected with all students in the classroom.
- Parents of nondisabled students benefit through increased opportunities for their daughter/son, increased gain in overall skills and the possible interest in pursuing a career in a helping profession.
- Regular classroom teachers benefit because the process is adaptable to any teaching style, easy to implement, cost effective, time efficient, proven to be effective with students, celebrates diversity and admonishes discriminative stereotyping (Longwill and Kleinert,1998).

Co-Teaching

Co-teaching is a form of collaborative teaching. It is based on continual classroom participation by supporting colleagues. The classroom lessons are jointly planned, taught and evaluated.

1. Benefits

The benefits of collaborative efforts have been detailed previously in this manual. In addition, reported benefits of co-teaching for students with disabilities are:

- improved attitudes regarding their abilities; the students tend to be less critical and more motivated;
- academic improvement;
- fewer are removed from classroom activities because they don't *fit in*;
- increased positive peer relations;
- improved social skills and support for social skill development;
- increased encouragement to participate;
- decreased teacher-pupil ratio leading to better instructional assistance; all students benefit from the regular and special education components; and
- a greater sense of community.

2. Organization

As with all systematic teaching situations, it is important to be well planned for co-teaching. When two or more teachers are involved, planning is even more crucial if optimum use of both teachers is desired. Co-teaching can be arranged in a number of formats:

- one teacher teaches the large group while the second teacher works with individual students to ensure concept development;
- two teachers teach the same content in two smaller groups;
- with two groups, one teacher reviews/re-teaches material while the other teaches alternate material to the other group;
- with multiple groups (e.g., learning centres, cooperative learning groups) both teachers teach; and
- two teachers teach the same content cooperatively.

Visual Strategies and Supports

A picture is worth a thousand words.

Given that most students with an intellectual or multiple disability have difficulty perceiving and processing spoken language and difficulty with auditory memory, visual supports can be a powerful learning tool. Many students with an intellectual disability are visual learners. Interpreting symbols, pictures and other visual stimuli are often a strength. The spoken word is transient, it vanishes quickly. Visual stimuli is much longer lasting and can be stored and brought out again if necessary.

Visual supports enhance communication

Visual supports are "things we see that enhance the communication process" (Hodgdon, 1995, p. 7). Visual supports include:

- body language such as facial expression, body orientation, proximity and stance, body movement, reaching, touching, eye contact, eye gaze and gaze shift;
- natural environmental cues such as furniture arrangement, location and movement of people and objects and print (e.g., signs, logos, labels, prices, menus, directions on packages); and
- traditional tools for organizing and giving information, such as calendars, schedules, TV guides, shopping lists, notes, maps and telephone books (Hodgdon, 1995).

Visual strategies can be used to support a student by:

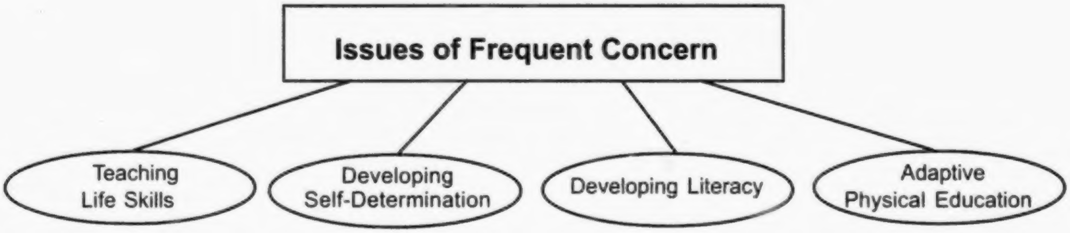
- giving information (e.g., schedules, calendars, menus);
- giving directions (e.g., lists of rules, receipts) ;
- organizing the environment (e.g., labels, colour codes, sorting bins); and
- mediating communication between environments (e.g., checklists, language experiences, pictured reports).

For further suggestions for visual supports refer to:

Hodgdon, L. (1995). *Visual Strategies for Improving Communication Volume 1: Practical Supports for School and Home,* Troy, MI: QuirkRoberts Publishing.

Issues of Frequent Concern

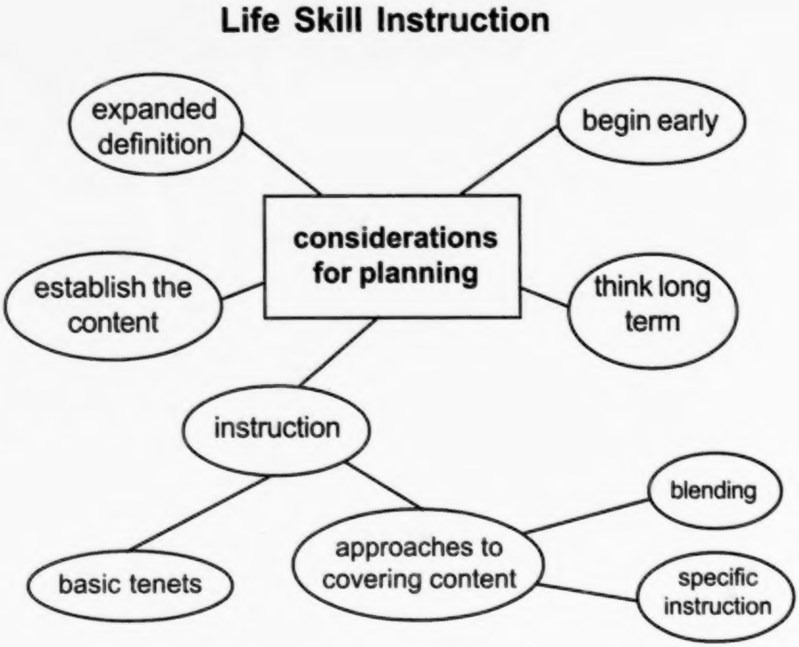
Figure 7.9. Issues of Frequent Concern.


Issues of Frequent Concern
Teaching Life Skills
Developing Self-Determination
Developing Literacy
Adaptive Physical Education

Life Skills Instruction

A common concern is that the student with intellectual or multiple disability will not adequately learn the necessary *life skills* in inclusive settings. In general terms, life skills are the competencies needed for adult life; that is, employment, leisure, home life, maintaining successful social relationships and life in the community. They are the skills involved in the ability to handle the events and challenges normally encountered on a day-to-day basis. In an inclusive context, life skills are developed through blending within the regular curriculum and through direct instruction in specific life skills lessons. Curricular innovation is emphasized, as are the concepts of integrated educational experiences and curriculum blending.

Figure 7.10. Life Skill Instruction.



1. Considerations for Planning Life Skill Instruction

An expanded definition of life skills

The conventional definition of life skills refers to daily living and vocational skills. Traditionally, such skills as food preparation, dressing and grooming, ordering food, public behaviour, money management and work education have been emphasized. *Functional* (or useful) has been the operant term when considering life skills. In consideration of the importance of self-determination, we are encouraged to broaden the term to include the following:

- communication;
- social interaction;
- functional academics;
- technical literacy;
- adaptive problem solving; and
- interests in science, art, music, history, literature, physical education, and other areas not typically considered for students with an intellectual or multiple disability.

Personal preference is also a deciding factor. It is a mistake to assume that the only things useful in a student's life are grooming, food preparation, transportation and work education.

Establish the content

Identify skills for future environments

It is important that the educational team identify the life skills requisite for the student's next environment and project many of the skills that will be required in long term future environments. Skills specific to an individual student are identified according to the following criteria.

Identify current and future domains

- Projected domains for the present and future provide the framework for instruction. The domains for the present typically include the development of positive values, attitudes, work habits, personal management, communication, social skills and functional academics. Projected domains for adulthood include employment skills, occupational guidance, homemaking, family living, consumerism, leisure pursuits, community involvement, physical and emotional health, personal relationships, contribution and citizenship, self-determination and interests leading to personal fulfilment.

Consider major life demands and everyday events

- Each of the above mentioned domains are considered with regard to the underlying skills required for competence in the projected goals. For example, leisure pursuits and community involvement may require the independent use of public transportation and/or some specific social skills that are currently weak. Projected homemaking may require cooking skills or cleaning skills.

Consider life skills relevant to the student's locale

- These skills are locally referenced and represent the tasks, community sources and people of the immediate environment. Cultural, family, community and gender issues are taken into consideration (Patton, Cronin, and Jairrels, 1997).

Begin early

It is important that life skills are a key point ingrained in the transition planning process throughout the student's school years. The process begins when the student is very young, and with each transition the requisite skills for the next environment are addressed and taught. A well grounded understanding of the student's transition needs, and subsequent plan, direct the long term pro-active approach to teaching the life skills that are critical to adult functioning.

2. Systematic Instruction of Life Skills

The following considerations are fundamental to all life skill instruction.

- Begin early.
- Bear in mind that learning is life long.
- Be futuristic; content must be relevant to the needs of the present, but always consider the context of where the student will be in the future.
- Make every opportunity count.

- Base content on community-referenced adult outcomes.
- Include community-based experiences.
- Provide instruction to prepare the student for her/his next environment.
- Instruction is intended to improve the student's quality of life.

The two basic approaches to teaching life skills include blending with the regular curriculum and instruction of specific life skills curriculum.

- **Blending life skill instruction with the regular curriculum**

The relationship of life skills to academic and social skills

The ability to read, write, converse, calculate, problem solve and interact socially are considered by most parents and teachers to be critical adult skills. These particular skills have a very natural relationship with the regular curriculum and can be developed within this framework.

The same can be said for many of executive organizational skills needed to cope with academic studies. Close examination of the course content is required to establish the life skills that are embedded. The informal times of the school day and extra curricular activities provide natural contexts for social skill development and application of personal management skills.

Opportunities for extending curriculum content into meaningful life areas are numerous. For example, mathematics can be extended to include functional application in life specific examples. This is introduced in the classroom through guided practise in contrived situations, and is then extended in practical applications in the community. Ordering lunch in the cafeteria or at a local restaurant can be used as an extension of mathematics, money management, social skill instruction, grooming, communication skills and so on. For the innovative collaborative team who are aware of the student's specific life skill requirements, the opportunities are continuous and vast.

- **Teaching specific life skills curriculum content**

If the opportunity to develop a prioritized life skill goal does not present itself in a natural manner through the typical day, it may be necessary to teach the specific skill in isolation. The specific skill can be instructed in a small group or individual format. The preference is to teach the skill in the context(s) of where it will be authentically used.

Developing Self-Determination

Issues of frequent concern: Self-Determination

Self-determination has been identified as a critical outcome of the student's program for the following reasons:

- Self-determination enhances general quality of life characterized by emotional, material, and physical well-being; interpersonal relationships; personal development; social inclusion and rights.
- There is increased involvement of students in educational planning and decision making.
- Personal empowerment leads to achievement of more positive outcomes in adult life. It also leads to becoming a valued member of society, a feeling of competence and an optimistic view of life.

1. Definition

The term *self-determination* contains four fundamental characteristics:

- the person acts autonomously, of his/her own preference, free from external influence;
- the person's behaviour is self-regulated;
- the person acts with the belief that they have the capacity to do a good job; and
- the person acts with knowledge of their strengths and limitations.

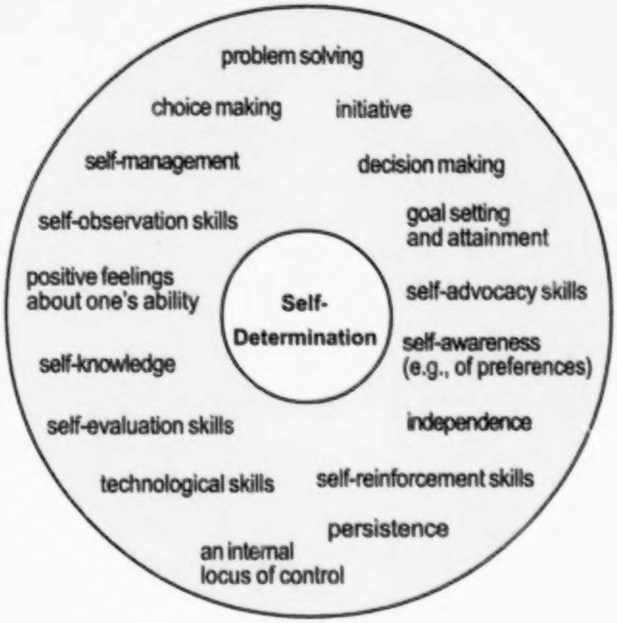
2. The Underlying Elements

There are many requisite elements that lead to the development of self determination. These elements tend to overlap and inter-relate, as suggested in Figure 7.11. Systematic instruction is best carried out through activities that integrate several of these elements at one time.

In addition to the requisite elements presented in Figure 7.11, several related behaviours also have to be considered. These include:

- actively seeking information (e.g., gaining attention, asking questions);
- expressing oneself (e.g., disagreement or satisfaction);
- initiating activities without adult prompting;
- planning one's own use of time;
- controlling conditions and outcomes (e.g., adjusting environment to seek comfort, negotiating with parents and teachers);
- contributing to situations (e.g., making suggestions); and
- voluntarily helping others.

Figure 7.11. Underlying Elements of Self-Determination



Self-determination during adolescence

The tumultuous period of adolescence adds a different perspective and a change of emphasis to self-determination. During adolescence the emphasis tends to centre on:

- self-awareness;
- self-esteem;
- risk and impulse control;
- a heightened concern for independence;
- a heightened concern for decision making; and
- youth-parent relationships (Field , Hoffman and Posch, 1997).

3. Barriers to Self-Determination

Students with intellectual or multiple disabilities are particularly prone to problems with self-determination. Many develop forms of learned helplessness and follow patterns of passivity, expectations of failure, depressed energy and resistance to new challenges. Several factors act as barriers to self-determination and contribute to the learned helplessness condition. Examples are:

- perception that others control their lives;
- excessive control by adults;
- lack of encouragement from significant others;
- lack of flexible support services;
- lack of stable relationships;

- lack of frequent opportunity to associate with nondisabled peers; and
- conflict within the educational team surrounding the student's choice making (Sowers and Powers, 1995).

4. Misinterpretations of Self-Determination

Self-determination is an often misunderstood concept. The following information is presented to help clarify possible misperceptions, and to offer a broader definition than what has been traditionally recognized.

Misinterpretation

- **Self-determination is independent performance.** Many people with an intellectual disability and, in a particular, multiple disability, require support. The key element is not necessarily who performs the activity but who retains control over the decision making and problem solving.
- **Self-determination is absolute control.** Humans always depend on others. Control, therefore, might be better described as *causal agent.* It is desirable that each person become the primary causal agent for their own lives.
- **Self-determined behaviour is always successful behaviour.** Every decision that a person makes is not an optimal decision. It is important, however, that the individual is *self-regulating*; that she/he realizes the effects of a decision and is able to adjust strategies accordingly.
- **Self-determination is self-reliance and self-sufficiency.** Relying on oneself and providing for one's needs can take many forms including choosing someone who could perform this task.
- **Self-determination is just skills or just opportunity.** Although effective skill impacts the degree of control over one's life so, too, does the array and intensity of supports available.
- **Self-determination is something you do.** Professionals cannot *do self-determination,* they only support, promote and enable it.
- **Self-determination is a specific outcome.** Self-determination is a fluid condition of loosely connected components. Moreover, it exists in matters of degree within each part. Individuals can be strong in one area and not in another.
- **Self-determination is just choice.** Choice is only one aspect of self-determination.

5. Instructional Considerations for Fostering Self-Determination

Four necessary components

Self-determination is developed through a long term commitment. Fostering self-determination should begin early in the student's life and become an integral part of transition planning and PPP development throughout the school years. To foster self-determination it is important for the educational team to understand the major components of developing self-determination, to promote a positive attitude among the instructional team toward self determination, and to know a variety of ways in which the actual instruction can take place.

The four necessary components of any effort to enhance self-determination are:

- know the student well, using ongoing assessment data to make education decisions;
- build an option-rich lifestyle for the student;
- systematically teach self-determination skills whenever necessary; and
- create supportive social contexts for the student within the classroom, school, and community (Bambura, Cole and Koger, 1998).

The educational team encourages self-determination

Self-determination for students with an intellectual or multiple disability is also dependent on the promotion of positive attitudes among the entire educational team. The educational team can encourage self-determination by:

- attending to the underlying elements of self-determination;
- providing opportunities for self-determination;
- providing activities that challenge the student;
- supporting student initiative;
- allowing the student to make choices, express preferences, participate in decision making and make plans to pursue interests;
- considering the potential impact of instructional approaches and choosing strategies that foster self-determination;
- understanding that excessively controlling the student is detrimental;
- helping students to realize that they are causal agents of their own lives;
- allowing students to experience the effects of their own lives;

- maximizing the student's opportunities to participate with nondisabled peers; and
- considering self-determination when the PPP objectives are being written.

General considerations

Instruction for fostering self-determination begins and continues throughout the school years. Instruction focuses on the following:

- following teacher directions without the aid of a prompt;
- enhancing nonmotor tasks (they require less prompting) as well as the traditional motor tasks emphasis;
- promoting self-determination within the context of daily routines and applying the functional task analysis whenever possible;
- making optimal use of incidental teaching opportunities and teaching within the framework of naturally occurring adult-child interactions;
- promoting task engagement (sustained attention) and persistence by using incidental teaching and child preference as motivation;
- using technology as a means of communication, possible access to socialization and, consequently, as a means for the child to expand his/her locus of control;
- enhancing social competence including interaction skills, negotiation and problem solving; and
- incorporating activity-based instruction. Activity-based instruction integrates many of the building blocks of self-determination – initiation, following directives and active engagement.

6. Specific Strategies

Choice making

Know the student's preference

It is not advisable to approach self-determination without knowing the student's preferences. Promoting opportunities for personal expression is motivating for the student and promotes happiness and enhanced quality of life.

- The initial step towards meaningful self-determined work and higher performance is a vocational preference assessment. After being guided through several job experiences the student is allowed to make an informed choice.

- Perhaps the most crucial element of developing choice making ability is the opportunity to practise. A frequent range of opportunities throughout life is recommended. The role of support is also important. The student with an intellectual or multiple disability may need support to guide choices and point out options. The support respects the opportunity for choice and does not limit the priviledge, however. The support is flexible and accepting, even when allowing choice becomes inconvenient. A set routine is also helpful. It affects quality and quantity by providing a comfortable framework for choosing options. Communicative ability is also important; social interactive language skills in particular.

Task Analysis

Students with an intellectual or multiple disability are prone to learned helplessness. In such situations instruction using a detailed task analysis may be helpful. The particular task in question is broken down into detailed steps and practised in a contrived situation to a point of competence. The task is then coached in a natural context. It is important that the instruction is well planned and that the detail is consistently followed.

Visual Supports

Visual supports can be very effective for promoting self-management and independent task completion. Planning healthy meals, for example, can be taught using sequenced pictures and colour coded food groups. Meal charts can be used to preplan meals and guide shopping.

Making choices within work assignments in the community can be enhanced through the use of photos. The student chooses through touching the photo of the preferred activity. Prompting may be necessary. Constant time delay methods have proven to be successful in these situations. Backwards chaining is used to decrease and fade the prompting.

Self-Management

Self-management is the active involvement of monitoring and controlling one's behaviours. It involves self-observation, self-evaluation and self-reinforcement. It implies that the student can operate without the reliance on teacher initiated external cues. Moreover, it is vital to self-determination.

Picture sequences, auditory tapes, checklists, faded prompting, demonstration, feedback from video recording, role plays, simulated practice from training scripts, and self-operated prompts such as computer technology can be used effectively to enhance self-management.

Collaborative Dialogue

Collaborative dialogue can also be used. Essentially, this process involves the instructor and the student discussing how a particular task will be completed. The instructor asks questions that guide the student and require her/him to think about how a task should be performed. The student can follow the instructor's suggestions or present arguments regarding alternate approaches. The student must also discover when a task can be completed independently and when help is legitimately needed. Dialogic collaboration is based on the principle that the instructor and the student teach each other. They are open to each other's knowledge and experience. They engage in active listening and dialogue about day-to-day experiences and problem solving. Together they make decisions. Reciprocity, respect and sensitivity are crucial. Risk taking is encouraged.

Modelling

The instructor can overtly model appropriate decision making strategies for the student while pointing out the steps of the process. The instructors can also point out appropriate models in the natural environment (e.g., peers making decisions).

Role play

The student can be part of simulated role plays that act out problem solving situations. Specific scripts are often used, providing the student with the appropriate language to *self talk*. Through role play the student is given the opportunity to practise self-determination in a controlled situation, developing the skills that will be used in real life.

Performance feedback via videotaping

The student can also be videotaped, either in a role play situation or in natural context. The video is then played back to the student, pointing out the various strengths and weaknesses of the performance.

Community-based instruction

The community offers a multitude of choice opportunity. Many choices are embedded within the natural routines presented. The environments that are chosen for the student are assessed for these qualities, and for the capability to complement PPP priorities. The empowerment to make choices tends to improve motivation, work productivity and task engagement while in the community.

Strategy-based attribution

Students with an intellectual disability tend to feel less competent with increasing age. This is due, in part, to comparison with non-disabled peers. It also may be due to the dependence on guidance from teachers. The tendency of those who experience repeated failure is to attribute the lack of competence to external factors (bad luck or task difficulty) and therefore be less persistent to future tasks. There is often a subsequent inferiority profile leading to low motivation and perceived low ability leading to low self esteem.

Instructors need to perceive the amount of difficulty that is being experienced, and know that it would be counter productive to ask the student to "try harder" if the student is trying hard and not doing well. A potential approach is *strategy-based attribution*. With this process, task difficulty is attributed to the need for an effective strategy, and not to lack of competence. Self talk is used to make attribution statements (positive statements about personal ability or the need to use a specific strategy), and specific strategies are taught. The student is taught that an effective strategy may be to use an adaptation or to seek assistance. This is particularly important if the task presented is very difficult for the student or represents learning a new concept.

Developing Literacy

In the past, children with an intellectual or multiple disability were often excluded from literacy opportunities because reading was taught is a lock-step manner in which a student was required to master a set of age-normed subskills before advancing to the next level. Children with intellectual or multiple disabilities lacked the cognitive capacity to master these subskills at the rate prescribed. In recent years, however, another definition of literacy has evolved. The hierarchy of isolated subskills has been de-emphasized and the focus has been placed on students as *active sense makers* who construct meaning through phonics, syntax, semantics and pragmatics. Reading is seen as a social process in which readers interpret and make sense of literature based on context.

Whether or not a reading environment is inclusive is influenced by the teacher's definition of literacy. A student with an intellectual or multiple disability typically is unable to conform to a set of predetermined subskills and pace of learning. The student may be able to engage in symbolic meaning at an individual pace, however, and should be involved in all levels of classroom discussions and activities.

All students are innately motivated to connect with a wider community . Furthermore, literacy is a tool that can be used to connect all individual students with the wider community. Literacy can be used as an opportunity for all students to participate and for all students to demonstrate friendship. The study of written language, therefore, can be an effective tool for inclusion (Kliewer, 1998; Kliewer and Landis, 1999).

It is important that the educational team recognize the importance of literacy for the student with an intellectual or multiple disability and respond appropriately. Literacy is an important factor in the student's social interaction, self-esteem, employment opportunities, independence and eventual self-determination. A nurturing literature rich environment can be more motivating and productive than a limiting lock-step approach. For the same reasons, a documentation of individual student growth is preferred over a norm- referenced assessment of progress.

A range of instructional strategies and approaches are effective in facilitating literacy development.

1. A Print Rich Environment

Research on emergent literacy for students with intellectual disabilities indicates that the process takes place in the same manner as it does with nondisabled students. Using similar methods and materials the same abilities will emerge, but the rate of learning will differ.

The fundamental indicators of emergent literacy are demonstrated knowledge of:

- the difference between written and oral language;
- reading direction (left to right and top to bottom);
- understanding the concept of a letter, word, sentence and title;
- the proper use of books (e.g., beginning to end, story continuity);
- different use of written language (reading for pleasure, to gain information, labelling);
- searching for meaning in the written word; and
- recognition of a few words (Saint-Laurent, Giasson, and Couture, 1997).

The essential elements for the development of emergent literacy are:

- role models that explicitly demonstrate the usefulness of the different types of reading and writing;
- frequent and regular opportunities for exploration in a print rich environment. Materials do not have to be *special.* The multitude of literature trade books that are now available for all age groups are ideal. Big books, shared reading, posters, magazines, newspapers, signs and written messages can all be used;
- interaction with adults;
- family commitment; and
- a home-school partnership.

2. Holistic Literature Instruction

Traditional instruction stressing drill and practise of isolated skills only accentuate what students with intellectual or multiple disabilities cannot do. An emphasis on prerequisites and a controlled access to print reduces the possibilities for print engagement. Ryndak, Morrison and Sommerstein (1999) emphasize an approach that encompasses listening, speaking, reading and writing in the everyday life of the individual. Simultaneous and interactive development is suggested. Literacy is acquired more quickly when instruction correlates with the written and spoken language that is required in the learner's real life. Authentic, life specific material affects motivation and early success which, in turn, reinforces the cyclic effect of increased motivation and further success.

3. Visual Strategies for Learning to Read

Visual learners can use visual supports to facilitate learning of spoken language and concepts that are needed (Oelwein,1995). Moreover, visual discrimination skills can be used to teach reading.

Further information on using visual strategies to teach reading can be found in:

Oelwein, P. (1995). *Teaching reading to children with down syndrome: A guide for parents and teachers.* Bethesda, MD: Woodbine House.

4. Writing

Frequent writing also improves reading. Students are encouraged to write as often as possible.

- Immerse learners in a writing environment.
- Accept and encourage successive approximations of letter formation.
- Place a priority on intended meaning.
- Use student selected topics.
- Use adaptations if necessary.
- Write for a variety of reasons:
  - journals;
  - respond to books that have been experienced;
  - letters to family and friends;
  - lists;
  - labels; and
  - notes home, to the teacher, to classmates.

Adaptive Physical Education

Quite often the physical education class, with its seemingly innate competitive nature, is a barrier to the student with an intellectual or multiple disability. However, with a collaborative effort from all teachers involved, participation in regular physical education is possible.

An ecological approach to planning physical education involvement is recommended. The emphasis of this approach is on analyzing the regular physical education program and determining the degree of specific support that is necessary. The student's nondisabled peers also have to be prepared for the adaptive participation that will take place.

Central to the student's participation are the particular adaptations that will compensate for the skills that are requisite to regular physical education. The following are possible adaptations that can be used.

Curricular adaptations for physical education

If the student has limited strength, power, or endurance, try:

- lower targets;
- reduced distance/playing field;
- reduced weight/size of striking implements, balls, or projectiles;
- allowing student to sit or lie down while playing;
- use of partially deflated balls or suspended balls;
- decreased activity time/increase rest time; and
- reduced speed of game/increase distance for students without disabilities.

If the student has limited balance, try:

- lowering center of gravity;
- keeping as much of body in contact with the surface as possible;
- widened base of support;
- increased width of beams to be walked (in gymnastics unit);
- extended arms for balance;
- use of carpeted rather than slick surfaces;
- teaching students how to fall;
- providing a bar to assist with stability;
- teaching student to use eyes optimally; and
- determining whether balance problems are related to health problems.

If the student has limited coordination and accuracy, try:

- using larger, lighter, softer balls for catching and striking activities;
- decreasing distance ball must travel and reduce speed at which it was thrown;
- use of smaller balls for throwing objects;
- use of stationary ball before trying one that is moving for stricking and kicking;
- increased surface area of the striking implement;
- backstops;
- increased target size;
- lighter, less stable pins in bowling games; and
- concentrate on safety (Block, 1994).

Curricular adaptations for group games are also appraised. Further information on adaptive physical education methods is found in:

Block, E. (1993). *A teacher's guide to including students with disabilities is regular physical education.* Baltimore: Paul H. Brooks Publishing Co.

Evaluation and Reporting Student Progress

The student's program and the instructional techniques used are to be dynamic, changing and evolving to remain relevant to the individual student. As the student is evaluated it is also important to assess the effectiveness of the instructional methods.

Evaluating Student Progress

Perhaps the most crucial factor of PPP evaluation is the educational team's sharing of information about student progress. Is the student progressing at what is collaboratively considered an adequate rate, breadth, depth and complexity of skill development? If not, what changes have to take place?

Student progress can be monitored in many ways. Usually a combination of methods is used.

1. Curriculum-Based Assessment

Curriculum-based assessment (CBA) is characterized by regular sampling of student performance from the student's individual curriculum. It involves a specific set of objectives (the PPP), a knowledge of skill levels at the beginning of instruction (base line data), intervention with a specific set of instructional strategies, collection of progress data and appropriate modification of the PPP if necessary.

An important aspect of CBA when applied to students with intellectual disability or multiple disabilities is that it is a process approach rather than a content approach. A content approach analyzes knowledge gained or not gained. A process approach analyzes the nature of the tasks presented and the process required to achieve success. Table 7.12 outlines a process approach to CBA.

Table 7.12. Process Approach to Curriculum-Based Assessment

A Process Approach to Curriculum-Based Assessment

Barbara Hoskins, Ph.D.

1. What does it take to perform this task?

Comprehension:
- ☐ Prior knowledge (scripts, concepts, text structure)
- ☐ Attention
- ☐ Perception
- ☐ Vocabulary comprehension
- ☐ Comprehension of sentence structure
- ☐ Memory

Organization:
- ☐ Sorting important vs. unimportant information
- ☐ Knowing where to begin

Expression:
- ☐ Retrieval from long term memory
- ☐ Oral formulation
- ☐ Visual-motor planning, handwriting
- ☐ Spelling
- ☐ Formulating narrative/expository text
- ☐ Using conversational interaction skills

2. What may make it difficult/easy for this student to perform?

3. What modifications or inhancements may allow this student to be successful?
- ☐ Extra time on tests
- ☐ Modified tests
- ☐ Opportunities to ask for clarification
- ☐ Buddy system/note taker
- ☐ Reading study questions in advance
- ☐ Training in study skills:
  - ✓ Flexible reading strategies
  - ✓ Note-taking and underlining
  - ✓ Story grammar
  - ✓ Mind mapping
  - ✓ Test-taking strategies
  - ✓ Memory strategies
  - ✓ Vocabulary of the classroom

From *Developing inclusive schools: A guide* (p. 140), by B. Hoskins, 1996, Bloomington, IN: CASE Research Committee. Copyright 1996 by CASE Research Committee. Reprinted with permission.

2. Ecological Analysis

Ecological analysis is a strategy to determine the relationship between the demands of a particular environment and the skills required to be successful in that environment. The analysis begins by identifying the number of environments in which the student participates and the number in which nondisabled peers participate. Next, the specific sub-environments are identified. When all environments have been identified a task analysis, or chain of behaviours demanded in each subenvironment, is developed. Finally, the student's capacity to respond to each of the demands is determined. From this analysis the instruction is modified or adapted accordingly.

The following steps for an ecological analysis are suggested:

- Determine the priority environments and activities.
- Watch a same-age peer to determine the chain of skills required for a particular activity.
- Observe the student's capacity with the same activity, specifying strengths and weakness.
- If necessary, suggest possible reasons why the student is not able to perform the activity.
- Alter the PPP projected goal in accordance with the above information.
- Implement instruction using appropriate adaptations (Downing,1996).

3. Authentic Demonstration

The term *authentic* pertains to real life. Authentic demonstration relates to the student's ability to exhibit, in real life situations, optimal independence and quality in any of the outcome goals stated on the PPP. Successfully boarding a bus, paying the fare and riding it to the decided destination is an example of an authentic demonstration.

4. Portfolio Assessment

The portfolio technique stresses a cumulative appraisal of skills. Rather than an isolated sampling of skills, longitudinal information is provided. Portfolios are a form of authentic performance based assessment. They contain real school and real life activities.

Portfolio assessments are developed and used under the following guidelines:

- The student and teacher choose what is included in the portfolio.
- The portfolio is not a collection of everything. It is a selective collection relating directly to the goals in the PPP. These are authentic demonstrations.
- The portfolio is a varied, multifaceted selection.
- The portfolio is organized by time and area of development. It reflects cognitive, social, academic, emotional, physical, motor and creative development.
- The portfolio is accessible and updated frequently.

Portfolio assessment can include:

- cooperative projects;
- unit projects;
- writing samples;
- art samples;
- reports;
- criterion referenced tests;
- anecdotal notes from teacher observations;
- anecdotal notes from parent observations;
- work samples;
- reading samples (e.g., written records of a miscue analysis);
- audio recordings (e.g., reading samples, class presentations);
- video recordings;
- awards and honours;
- checklists of mastered skills;
- a log of books read or listened to;
- pictures of the student or of a student's project;
- student journal;
- self evaluations;
- curriculum based assessments; and
- parent-teacher communication and/or conferences.

In summary, data collected on student learning indicates the effectiveness of the PPP that has been developed. Using a combination of the above assessment methods, the collaborative team can attain measures of the student's:

- skill accuracy;
- frequency of skill use;
- rate of task completion;
- quality of work;
- complexity of work;
- attention span; and
- change in quality of life.

With this data the team alters the PPP and subsequent instruction appropriately.

Reporting Progress to Families

The following suggestions are offered for reporting to parents.

- Use the same report card for all students.
- Distribute the report card to all students at the same time.
- Use the regular grading system wherever the student is expected to participate in the regular curriculum activities.
- Use structured comments to report on goals when substantial curriculum modification is required.
- Use an insert to make comments referring directly to the goals stated on the PPP.

Recommended Reading

Alper, S. (1996). Instructional strategies for inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 125-138). Needham Heights, MA: Allyn and Bacon.

Bambara, L., Cole, C. L., & Koger, F. (1998). Translating self-determination concepts into support for adults with severe disabilities. *The Journal of the Association for Persons with Severe Handicaps, 23*(1), 27-37.

Bissell, J., Fisher, J., Owens, C., & Polcyn, P. (1988). *Sensory motor handbook: A guide for implementing and modifying activities in the classroom*. Torrence, CA: Sensory Integration International.

Block, M. (1994). *Including students with disabilities in regular physical education.* Baltimore: Paul H. Brookes Publishing Co.

British Columbia Ministry of Education: *Special Education. Students with intellectual disabilities: A resource guide for teachers*. Retrieved July 17, 2001, from http://www.bced.gov.ca/specialed.

Brown, F., & Cohen, S. (1996). Self-determination and young children. *The Journal of the Association for Persons with Severe Handicaps, 21*(1), 22-30.

Brown, F., Gothelf, C. R., Guess, D., & Lehr, D. H. (1998). Self-determination for individuals with the most severe disabilities: Moving beyond chimera. *The Journal of the Association for Persons with Severe Handicaps, 23*(1), 17-26.

Calculator, S. N. (1994). Communication intervention as a means to successful inclusion. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction and participation* (pp. 183-214). San Diego, CA: Singular Publishing.

Cooper, K. J., & Browder, D. (1998). Enhancing choice and participation for adults with severe disabilities in community-based instruction. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 252-260.

Cronin, M. E., & Patton, J. R. (1993). *Life skills instruction for all students with special needs: A practical guide for integrating real-life content into the curriculum*. Austin, TX: PRO-ED, Inc.

Downing, J. E. (1996). *Including students with severe and multiple disabilities in typical classrooms: Practical strategies for teachers*. Baltimore: Paul H. Brookes Publishing Co.

Ellis, D. N., Wright, M., & Cronis, T. G. (1996). A description of the instructional and social interaction of students with mental retardation in regular physical education settings. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(3), 235-242.

Ellis, E. (1997). Watering up the curriculum for adolescents with learning disabilities: Goals of the knowledge dimension. *Remedial and Special Education, 18*(6), 326-346.

Ellis, E. (1998). Watering up the curriculum for adolescents with learning disabilities -Part 2: Goals of the affective dimension. *Remedial and Special Education, 19*(2), 91-105.

Gent, P. J., & Gurecka, L. E. (1998). Service learning: A creative strategy for inclusive classrooms. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 261-271.

Giangreco, M. (1996). *Vermont Interdependent Services Team Approach (VISTA). A guide to coordinating educational support services.* Baltimore: Paul H. Brookes Publishing Co.

Giangreco, M., Edelman, S. W., MacFarland, S., & Luiselli, T. E. (1997). Attitudes about educational and related service provision for students with deaf-blindness and multiple disabilities. *Exceptional Children, 63*(3), 329-342.

Giangreco, M., & Cravedi-Cheng, L. (1998). Instructional strategies. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 29-56). Baltimore: Paul H. Brookes Publishing Co.

Grenot-Scheyer, M., Jubala, K. A., Bishop, K. D., & Coots, J. J. (1996). *The inclusive school: Professional's guide.* Westminister, CA: Teacher Created Materials.

Grigal, M. (1998). The time-space continuum: Using natural supports in inclusive classrooms. *Teaching Exceptional Children, 30*(6), 44-51.

Hammeken, P. A. (1995). *450 strategies for success: A practical guide for all educators who teach students with disabilities.* Minnetonka, MN: Peytral Publications.

Hammeken, P. A. (1996). *An essential guide for the paraprofessional: A practical reference tool for all paraprofessionals working in inclusionary settings.* Port Chester, NY: National Professional Resources, Inc.

Hertzog, N. B. (1998). Using open-ended learning activities to empower teachers and students. *Teaching Exceptional Children, 30*(6), 26-31.

Hoskins, B. (1996). *Developing inclusive schools: A guide*. Bloomington, IN: CASE Research Committee.

Huetigg, C., & O'Connor, J. (1999). Wellness programming for preschoolers with disabilities. *Teaching Exceptional Children, 31*(3), 12-17.

Hughes, C., Guth, C., Hall, S., Presley, J., Dye, M., & Byers, C. (1999). "They are my best friends". *Teaching Exceptional Children, 31*(5), 32-37.

Jorgensen, C.M. (1994). Modifying the curriculum and short-term objectives to foster inclusion. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 75-112). San Diego, CA: Singular Publishing.

Jorgenson, C. M. (1994). The evolution of best practices in educating students with severe disabilities. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with disabilities in schools: Fostering communication, interaction, and participation* (pp. 1-26). San Diego, CA: Singular Publishing Group.

King-Sears, M. E., & Cummings, C. S. (1996). Inclusive practices of classroom teachers. *Remedial and Special Education, 17*(4), 217-225.

King-Sears, M. E. (1999). Teacher and researcher co-design self management content for an inclusive setting: Research training, intervention and generalization effects on student performance. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(2), 134-156.

Kliewer, C. (1998). *Schooling children with Down syndrome: Toward an understanding of possibility*. New York, NY: Teachers College Press.

Kliewer, C. (1998). Citizenship in the literate community: An ethnography of children with Down syndrome and the written word. *Exceptional Children, 64*(2), 167-180.

Kliewer, C., & Landis, D. (1999). Individualized literacy instruction for young children with moderate to severe disabilities. *Exceptional Children, 66*(1), 85-100.

Kozub, F. M., & Porretta, D. L. (1999). Internal and external attributions for levels of perceived physical competence in children with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(1), 35-42.

Lichtenstein, J. L. (1997). The essence of empowerment. *Teaching Exceptional Children, 30*(2), 16-19.

McConnell, J. (1998). Instruction for students with severe disabilities in general education settings. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(3), 199-215.

Mercer, C. D., Lane, H. B., Jordan, L., Allsop, D. H., & Eisele, M. R. (1996). Empowering teachers and student with instructional choices in inclusive settings. *Remedial and Special Education, 17*(4), 226-236.

Modell, S. J., & Cox, T. A. (1999). Let's get fit. *Teaching Exceptional Children, 31*(3), 24-29.

Patton, J. R., Cronin, M. E., & Jairrels, V. (1997). Curricular implications of transition: Life skills instruction as as integral part of transition education. *Remedial and Special Education, 18*(5), 294-306.

Pomplun, M. (1997). When students with disabilities participate in cooperative groups. *Exceptional Children, 64*(1), 49-58.

Putnam, J. W. (1998). *Cooperative learning and strategies for inclusion: Celebrating diversity in the classroom*. Baltimore: Paul H. Brookes Publishing Co.

Rainforth, B., & York-Barr, J. (1997). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Rawlings, M., Dowse, L., & Shaddock, A. (1995). Increasing the involvement of people with an intellectual disability in choice making situations: A practical approach. *International Journal of Disability, Development and Education, 42*(2), 137-153.

Reisberg, L. (1998). Facilitating inclusion with integrated curriculum: A multidisciplinary approach. *Intervention in School and Clinic, 33*(5), 272-277.

Ryndak, D. L. (1996). Natural support networks: Collaborating with family and friends for meaningful education programs in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 61-76). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L. (1996). Educational teams and collaborative teamwork in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 77-96). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L. (1996). Adapting environments, materials, and instruction to facilitate inclusion. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 97-124). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L., & Weidler, S. D. (1996). Application to special education curriculum areas with general education parallels. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 177-214). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L., Morrison, A. P., & Sommerstein , L. (1999). Literacy before and after inclusion in general educcation settings: A case study. *The Journal of the Association for Persons with Severe Handicaps, 24*(1), 5-22.

Saint-Laurent, L., Giasson, J., & Couture, C. (1997). Parents + children + reading activities = emergent literacy. *Teaching Exceptional Children, 30*(2), 52-56.

Schlichter, C. L., Larkin, M. J., Casareno, A. B., Ellis, E., Gregg, M., Mayfield, P., & Rountree, B. S. (1997). Partners in enrichment: Preparing teachers for multiple ability classrooms. *Teaching Exceptional Children, 29*(4), 4-9.

Scott, B. J., Vitale, M. R., & Masten, W. G. (1998). Implementing instructional adaptations for students with disabilities in inclusive classrooms: A literature review. *Remedial and Special Education, 19*(2), 106-119.

Siegel-Causey, E., McMorris, C., McGowen, S., & Sands-Buss, S. (1998). In junior high you take earth science. *Teaching Exceptional Children, 31*(1), 66-72.

Stainback, S., & Stainback, W. (1996). *Inclusion: A guide for educators*. Baltimore: Paul H. Brookes Publishing Co.

Stainback, W., Stainback, S., & Stefanich, G. (1996). Learning together in inclusive classrooms: What about the curriculum? *Teaching Exceptional Children, 28*(3), 14-19.

Udvari-Solner, A., & Thousand, J.S. (1995). Promising practices that foster inclusive education. In R. A. Villa & J. S. Thousand (Eds.), *Creating and inclusive school* (pp. 87-109). Alexandria, VA: Association for Supervision and Curriculum Development.

Udvari-Solner, A. (1996). Examining teacher thinking: Constructing a process to design curricular adaptations. *Remedial and Special Education, 17*(4), 245-254.

Udvari-Solner, A. (1998). Adapting the curriculum. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 1-28). Baltimore: Paul H. Brookes Publishing Co.

Vaughn, S., Schumm, J. S., & Arguelles, M. E. (1997). The ABCDEs of co-teaching. *Teaching Exceptional Children, 30*(2), 4-10.

Weaver, H. R., Adams, S., Landers, M., & Fryberger, Y. (1998). Meeting the life skill needs of students with developmental disabilities in integrated settings. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities*. Austin, TX: PRO-ED, Inc.

Wehmeyer, M. L., & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation or learning disabilities. *Exceptional Children, 63*(2), 245-256.

Wehmeyer, M. L. (1998). Self-determination and individuals with significant disabilities: Examining meanings and misinterpretations. *The Journal of the Association for Persons with Severe Handicaps, 23*(1), 5-16.

8 Developing Communication Skills

The Chapter at a Glance

Definitions
  - Communication
  - Language
  - Speech

Trained Personnel: The Speech-Language Pathologist

Intervention: Assessment and Instruction

Augmentative and Alternative Communication Systems (AAC)
  - Considerations when Choosing an AAC

Strategies for the Classroom
  - General Strategies
  - Strategies to Develop Listening Skills
  - Strategies to Develop Vocabulary
  - Strategies to Develop Thinking and Reasoning

Definitions: Communication, Speech and Language

Communication

Communication is the process of one person formulating and sending a message to one or more other persons who receive, decode and interpret the information sent. People communicate in many ways, verbally and nonverbally. Spoken and written words, crying, shouting, sign language, expressions, gestures, pointing and other deliberate body movements, expressions of anger, pictures, signs and symbols, music and codes are all examples.

Language

When people communicate they typically use some type of symbolic form to represent meaning. Rarely is an actual concrete item presented. This symbolic representation is called language. "Language is a structured system of symbols which catalogues the objects, relations and events within a culture" (Kumin, 1994, p. 7). More specific than communication, language is a code that everyone in the language community attempts to understand.

Language has both *receptive quality* (receiving and understanding ideas, concepts and their relationships) and *expressive quality* (developing and sending messages).

Speech

Speech is the process of producing sounds and combining these sounds into words. With speech, communication can be very explicit and precise. Speech requires a great deal of physical and cognitive coordination and for some individuals can be difficult to use.

Trained Personnel: The Speech-Language Pathologist

The ability to communicate effectively is an extremely important outcome of educational programming for students with an intellectual or multiple disability. For instance, communication ability underlies cognitive problem solving, social interaction, academic achievement, self-determination, employment and leisure. Essentially, communication impacts all determinants of quality of life.

For most people, acquiring the ability to use language and speech toward effective communication is an inherent process. The world at large is the creative stimulus, and communication develops naturally as the individual, guided by parents and/or significant care givers, seeks to interact with and make sense of various environments. The complex intricacies and rules are sorted and clear communication is the product. For persons with intellectual or multiple disabilities, however, this inherent process cannot be assumed. Rather, communication delays and disorders are more the rule, and intervention to assist with development is required.

Assisting a student to acquire efficient communication requires a substantial knowledge base. Communication programming, augmentative and alternate communication devices, and ongoing methods for intervention should be developed with the assistance of a qualified speech-language pathologist. The information presented in this section of the manual represents an awareness framework and a basic core of knowledge that educational teams can use to assist their students.

Intervention: Assessment and Instruction

Assessment and instruction for the purpose of developing communication skills is predicated on the following assumptions:

Communication is a rich multidimensional interactive process

- Communication is a rich multidimensional interactive process requiring both a sender and a receiver. Assessment and instruction also consider the communicative partner.
- A communicative exchange implies a reciprocal relationship; the sender affects the receiver and the receiver affects the sender. The partner's characteristics are considered within assessment and instructional planning.
- The goal of communication is functional shared meaning. Interpretation of meaning requires contextual and background information shared by the communicative partners.
- All persons are eligible to communicate. Alternative and/or augmentative methods may have to be considered; it is inappropriate to impede anyone's potential to communicate.
- The intended outcome for using a communication device is improved quality of life.

Assessment

Traditionally, communicative assessments have been based on comparisons to standard development, with particular attention given to speech (linguistic competence). Under such standards, a student with an intellectual or multiple disability would usually score very low. Nonetheless, this same person may experience continual success when communicating with peers and adults. Assessment, therefore, has to take into consideration the differences in opportunities and interactive experiences typically encountered by those with disabilities. Assessment that describes communication according to its efficiency in functional situations, as opposed to comparing it to a standard, is ultimately more useful (Mar and Sall, 1999).

By assessing a student's communicative ability the educational team should attempt to discover the following information (Johnson, Baumgart, Helmstetter and Curry, 1996).

- **The student's conceptual knowledge based on experience**
  The concern is to discover the breadth of the student's knowledge base and the student's grasp of the fundamental cognitive processes. Abilities with means-end, cause and effect, imitation, generalization, memory, processing speed, word retrieval, abstract thinking and vocabulary (semantic) levels are examined.
- **The student's communication experience**
  The number and general quality of communicative experiences is determined. Consideration is also given to the student's ability to observe and imitate, to use communication codes (e.g., spoken language, hand signs, symbols) and past level of success.
- **The student's level of intentionality**
  The student's level of awareness that her/his communication attempts and signals can affect others is determined. Students are rated on a continuum from having no goal awareness to being able to formulate and reflect on a complex plan.
- **The student's physical and sensory abilities**
  Abilities that affect the modalities available for communication are analyzed. Reference is made to the student's physical and mental health as well as sensory and perceptual skills (the ability to give meaning to sensory input).
- **The student's specific communicative competence**
  Concern is for the student's effective comprehension and use of basic communication structures. For those students requiring extensive communication support, all behaviour has to be viewed as having communicative potential; even inappropriate behaviour. The initial emphasis is placed on the student's comprehension of signs, symbols, gestures and yes-no questions. The communication structures that the individual student uses are then analyzed (refer to Table 8.1).

Table 8.1. Analyzing Communicative Structures

1. **Context**

   Consideration is given to the setting, the activity, the topic and to what has been said. "Context refers to where a person is, what the person is doing, to whom the person is talking, how he or she said something, what his/her partners just said, what the person assumes the partner knows, and what the partner assumes the person knows" (Johnson et al., 1996, p. 36).

2. **The signal**

   The signal is any behaviour that has occurred as a result of the context. For example, gazing, shouting, crying, pointing, self injury or smiling.

3. **The partner's response to the signal**

   The reaction and possible action that the partner takes once the signal is received.

4. **The discourse function**

   Whether the signal served to initiate, maintain, or terminate the interaction is determined.

5. **The pragmatic function**

   Attention is given to what the student achieved by the signal or how the signal was interpreted by the partner.

6. **Speech**

   If appropriate, the focus is on the student's comprehension and use of specific speech-language components, and how it is applied to overall communicative competence. These specifics include morphology, syntax, pragmatics and phonology.

   Morphology refers to using the individual elements of language (root words, prefixes, suffixes) to form words.

   Syntax refers to rules of grammar, word order and sentence structure.

   Pragmatics refers to the social and interactional use and comprehension of language in authentic contexts. Pragmatics involves:

   - kinesics - the gestures of communication;
   - proxemics - use of space and distance between individuals;
   - intent - establishing a purpose for communication;
   - eye contact;
   - facial expressions;
   - conversation skills;
   - stylistic variations - adapting communication to suit a particular audience;
   - presuppositions - providing necessary background information;
   - turn-taking;
   - topicalization - how to choose a topic, introduce it, maintain it, stay on it and change it;
   - making and responding to a request; and
   - clarification and repairs - asking for more information and/or clearing misunderstanding.

   Phonology refers to speech sounds.

   If the student is able to use speech, the primary concern is for *intelligibility*; the ability to convey a message clearly. When assessing intelligibility, the following characteristics are considered:

   - rate;
   - loudness;
   - fluency - smoothness of speech;
   - phonological processes - sound simplifications, commonly used by young children (e.g., fum/thumb gagi/daddy);
   - tongue thrust/swallowing pattern;
   - voice quality - such as smooth, husky, hoarse, breathy, etc.;
   - resonance - tonal quality; and
   - articulation.

   Articulation, the accurate production of phonemes (distinct speech sounds) is a speech characteristic that typically receives a major emphasis. A student's ability to articulate can be affected by the following difficulties:

   - hearing loss and/or fluctuation;
   - low muscle tone in the oral periphery;
   - dysarthria - the inability to control movements due to neurological factors; and
   - verbal apraxia - difficulty, due to neurological factors, with planning the voluntary movements needed to make speech sound (Kumin, 1994).

- **The student's communicative partners**
  In addition to assessing the particular student, the student's partners and potential partners should also be considered. The environments the student accesses or would like to access are also examined. This assessment includes:
  - assessing peer participation and interaction patterns;
  - assessing the student's daily routines;
  - combining data from the various schedules to determine opportunities for participation;
  - determining the potential barriers to participation; and
  - determining roles of partners in the assessment.

  (Refer to Appendix F for examples).

Instruction

There are a variety of activities that can be used to enhance the communicative competence of students with intellectual or multiple disabilities. Instruction can take place through *blending* within regular daily activities or through separate tutorial sessions. Examples of such activities are presented at the end of this chapter. The speech-language pathologist is an excellent source for such ideas and can also offer advice regarding the implementation of the activities. If possible, frequent consultation with the speech-language pathologist is recommended.

It is important to be aware of the difference between a communication delay and a communication disorder, and the subsequent implications for qualified personnel. A delay usually implies that communication is developing slowly but steadily. In this circumstance the student will usually respond to the more common approaches to instruction, such as those suggested at the end of this chapter. With a communication disorder (e.g., voice problems, some forms of articulation difficulty and neurological-based difficulty such as apraxia) the student may not effectively respond to typical instruction. Such circumstances usually require the involvement of a speech-language pathologist.

Regardless of the activity or the manner of presentation, communication instruction for students with an intellectual or multiple disability is grounded in the following:

- awareness of how individuals learn to communicate, beyond the traditional emphasis on linguistic competence;
- awareness of the need for a *total communication* approach to intervention. That is, a concurrent use of speech, sign, gestures or graphics designed to correspond to the student's unique communication ability;

- awareness of the need for quality interaction in real life situations and a commitment to maximize the opportunities for quality interaction with nondisabled peers;
- awareness of the significance of genuinely functional communication for the student's quality of life; and
- commitment to the development of functional communication through: accepting that communication can take place at any level on the developmental continuum; knowing the student's level of communication ability; and placing emphasis on partner skills to ensure appropriate opportunities.

Augmentative and Alternative Communication Systems

When a student is unable to effectively use speech to communicate and communicative competence is impeded or denied as a result, augmentative and alternative communication systems (AAC) are considered.

If an AAC system is being considered a speech-language pathologist must be involved

AAC systems can be aided or unaided systems. An aided system requires using a device that is external to the individual, whereas an unaided system relies on using hand or body motions. The Picture Exchange Communication System (Frost and Bundy, 1994) is an example of an aided system. Other examples of aided systems are communication boards/books/wallets, head light pointers, speech synthesizers and computers. Examples of unaided systems are facial expressions, gestures, pointing, touching, nodding or shaking the head and sign language.

Considerations for Choosing an AAC System

Several considerations are made when choosing an AAC system.

- The ultimate reason for an AAC is to foster the ability to communicate independently within the environments that the student frequents.
- The audience for which it will be used is also a major consideration. The AAC has to meet both immediate and long-term needs.
- The AAC system should be nonintrusive to communication flow, allowing use within functional and purposeful activities.
- It should be easily accessible and help to promote interaction with peers and persons other than paid personnel.
- It should be age appropriate and presentable in social situations.
- Student preference for the type of AAC system should be acknowledged.

- Requisite abilities should be understood and developed if necessary.
- *Pluralism* (the use of more than one type of communication system) should be acknowledged; even people that speak use more than one system to communicate.
- It should be portable and durable.

Once an AAC system has been chosen it is important that it is used frequently and appropriately. When using an AAC system in inclusive settings the following suggestions are taken into consideration.

- Provide the student with support to use the AAC (e.g., physical, sensory, personal, attitudinal) if required.
- The educational team should try to create a community friendly environment by:
    - involving the student's classmates and building awareness among her/his peers;
    - modelling effective use of the AAC; and
    - encouraging opportunities for using the AAC in natural contexts.
- Honour the student's AAC; allow independent use and privacy if requested.
- Avoid over dependence on high technology; foster pluralism using 'low tech' devices and unaided types if possible.
- Update the AAC frequently.
- Evaluate the AAC frequently ensuring that it remains effective and relevant (Giangreco, 1998).

Strategies for the Classroom

General Strategies

A student's communication competence can often be enhanced within the natural flow of a typical classroom day. The following are examples of general strategies that can be used.

Table 8.2. General Language Suggestions

General Language Suggestions

1. Ask your speech-language pathologist for specific assistance/information if you are unsure which speech/language problems your student exhibits.
2. Gain the student's attention before speaking.
3. Use open-ended questions rather than those which can be answered by one or two words.
4. Follow the student's lead in conversation by responding to his/her actions or interest in a subject.
5. Be animated and use language with pleasure; it is contagious.
6. Practice wait time; it often takes a student with language difficulties longer to process what you said and to plan a response.
7. After practicing wait time, prompt the student with a question or the beginning of a statement.
8. Create time during every school day when your students can talk productively with each other as they plan an activity, solve a problem, etc.
9. Be a good language model yourself. Speak clearly, stay with one topic, signal when you change topics, maintain good eye contact when you speak and listen, clarify unclear statements and give adequate time for a response.
10. If a student does not respond to your question/comment, repeat your communication in a simpler form.
11. Encourage all students to wait quietly for a classmate to respond. Discourage wild hand waving, shouting out, etc.
12. Use modeling to help the student use language more effectively. In modelling, the teacher responds with an appropriate sentence that carries on the topic, but that might not contain any of the words that the student used originally.
13. Use prompting to help the student create more interesting interactions. Ask a question that requires something other than a yes/no response.
14. Use multisensory prompting. Combine gestural, oral and sometimes written prompts (e.g., a "more" gesture with your hand).
15. Use echoing to help the student to use language correctly. In echoing, the teacher imitates the student's sentence with a questioning tone of voice at its conclusion to encourage the student to restate using a correct or alternate form.
16. Give choices. If the student uses language that is incorrect or too simple, repeat the original phrase/sentence and then add a better phrase/sentence (e.g., He done it? or He did it?).
17. Take note of any interests of the student and plan writing or verbal exercises around them.
18. Have the student repeat in his/her own words directions or new concepts you have given.
19. Give instructions to the student individually after you have given them to the class as a whole.
20. If necessary, monitor and simplify the complex language found in textbooks, worksheet instructions and readers.
21. Make all speech to the student direct and concrete; explain any idioms or figurative langauge.
22. Encourage the student to rehearse internally what was heard and what needs to be done to complete an assignment.
23. Use *scaffolding*. Provide a verbal bridge between what the student says/knows and what is expected of other students in the class.
24. Give specific feedback to the student when he/she makes errors, particularly in pragmatics.
25. Read aloud to your class on a regular basis. It allows your students to hear less common vocabulary and carefully crafted language in a pleasurable activity.

Strategies to Develop Listening Skills

- Repeating rhythms such as clapping hands and varying the number of claps, tempo, rhythm and accent can be useful.
- Provide frequent practise for repeating information such as full name, address, telephone number, birthdate, names of family members, letters of the alphabet, days of the week, months of the year and seasons of the year.
- Incorporate auditory memory practise with the spelling of reading meaningful words (e.g., "Say these letters after me, b-o-y; that spells boy").
- Ask the student to recall events from the previous day, from the morning of the same day or last weekend. If possible have the child recall in sequential order.
- Read a story to the class and have the child(ren) retell the major events in their exact order. A variation of this would be to sequence a series of pictures relating to the story.
- Read a story in the morning. Then, later in the morning, after lunch, or even the next day, ask the child to retell the story.
- Discuss criteria for good listening:
  - quiet hands, feet, lips;
  - look at speaker;
  - listen to all that is said;
  - think about what is heard; and
  - ask appropriate questions.
- Play pleasant and enjoyable music to start the school day. This can be helpful for children who have learned to **not** listen.
- Read the student a story and as you read, occasionally say a wrong word. Have student correct each of your mistakes.

Strategies to Develop Vocabulary

A number of commonly used strategies in regular classroom instruction are also beneficial for the student with an intellectual or multiple disability. For example:

- thematic units;
- whole language activities;
- reading and discussing books;
- viewing and discussing pictures, paintings, etc.;
- discussing TV programs, or any activity of interest;

- words of the day;
- singing songs;
- drama;
- closure activities;
- word association activities; and
- labels used throughout the room.

Strategies to Develop Thinking and Reasoning

The following strategies can be used to facilitate development of thinking and reasoning skills. In addition, vocabulary can be strengthened through these activities:

- classification exercises;
- association exercises;
- sequencing exercises;
- discussing similarities and differences;
- discussing humour, idioms and puns;
- discussing absurdities;
- discussing the attributes of specific items (e.g., size, shape, colour);
- categorization exercises; and
- analogy exercises.

Recommended Reading

Calculator, S. N. (1994). Communication intervention as a means to successful inclusion. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 183-214). San Diego, CA: Singular Publishing.

Duncan, J. M., & Prelock, P. (1998). Communication systems in the classroom. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 57-85). Baltimore: Paul H. Brookes Publishing Co.

Freeman, S., & Dake, L. (1996). *Teach me language: A language manual for children with autism, Asperger's syndrome and related developmental disorders*. Langley, BC: SKF Books.

Johnson, J. M., Baumgart, D., Helmstetter, E., & Curry, C.A. (1996). *Augmenting basic communication in natural contexts*. Baltimore: Paul H. Brookes Publishing Co.

Kumin, L. (1994). *Communication skills in children with down syndrome: A guide for parents*. Bethesda, MD: Woodbine House, Inc.

Mar, H. H., & Sall, N. (1999). Profiles of the expressive communication skills of children and adolescents with severe cognitive disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(1), 77-89.

Ryndak, D. L. (1996). Adapting environments, materials, and instruction to facilitate inclusion. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 97-124). Needham Heights, MA: Allyn and Bacon.

9

Developing Social Skills

The Chapter at a Glance

- Defining Social Skills
  - Social Skills, Social Competence, and Social Awareness
- The Importance of Social Competence
- Facilitating Friendships
  - The Skills Associated with Friendship
  - Connectedness and Belonging
  - Strategies to Promote Friendship, Connectedness and Belonging
  - Allowing Choice of Friends
- Developing a Natural Support Network
- The Need for Systematic Instruction
- Developing Social Competence
  - The Principles of Teaching Specific Social Skills
  - The Skills Involved
  - Assessment
  - Approaches to Teaching Social Skills
- Resources

Defining Social Skills

Social skills refer to the wide variety of responses that are necessary for any individual to initiate, maintain and terminate interaction with others. Social skills also include the adaptive problem solving necessary to maintain a reciprocal exchange and to adjust to the diverse demands of different social contexts or within a specific context. For example, at a typical party the conversation changes repeatedly, as do the activities.

Social Skills, Social Competence and Social Awareness

It is important that teachers understand the distinction among the terms *social skills, social competence* and *social awareness* and how these concepts interrelate.

Social skills are the components necessary for interaction. Social competence refers to how well an individual uses specific social skills to attain social objectives or to control or regulate a social environment. Social competence encompasses temperament, character and social awareness.

- Temperament refers to one's physiological responses, and how one controls her/his impulses.
- Character concerns one's moral responses, and the value one holds for the perspective and rights of others.
- Social awareness alludes to an individual's understanding of how to achieve social competence. It comprises the ability to understand people, and to understand how to act within social events. Social awareness, therefore, underlies the competent use of social skills. Social awareness consists of sensitivity, insight and communication. Sensitivity is the ability to perceive social nuances; insight is the ability to interpret social situations, to read people and to discriminate the subtle verbal and nonverbal social cues; and communication is the ability to act, based on sensitivity and insight (Black and Langone, 1997).

The Importance of Social Competence

A student's social competence is predictive of later adjustment. Inappropriate use of social skills is perhaps the most significant barrier to full inclusion in school and community contexts for individuals with intellectual and multiple disabilities.

> "Inappropriate social skills may account for many negative outcomes for students with disabilities. Social skills deficits repeatedly result in lowered achievement in school, unsuccessful integration in school and community, placement in more sheltered, restrictive environments in the community, and loss of competitive employment" (Alper, 1996, p. 141).

A person's perceived aptitude is largely defined by the ability to successfully participate in social interaction. For example, social awareness and competence are viewed as the most crucial requisite to successful employment and independent living (Black and Langone, 1997). Social competence also influences a person's social status. Peer group acceptance is largely dependent on whether or not a person's behaviour is liked by the peer group (Siperstein, Leffert and Widaman, 1996).

Inadequate social skill development also interferes with the formation of friendships. As a result of weak social skill development, many individuals with an intellectual or multiple disability lead isolated and lonely lives and associate primarily with family members or paid staff.

Friendships typically result between people who share common interests and beliefs. To develop friendships it is necessary for individuals to spend time with others, interact, share experiences and activities and develop a common ground. This sharing requires the effective use of social skills.

An isolated and lonely life can also lead to other complications. Chronic feelings of loneliness are associated with significant emotional and behavioural problems. Clinical depression and eating disorders, for example, can stem from loneliness. Loneliness has also been associated with self-perceptions of having poor social competence and with decreased social risk taking (Hendrickson et al., 1996).

Facilitating Friendships

What is most important in life? Arguably it is to have a good friend.

At the heart of any community is friendship. Having a friend allows a person to express friendship and the love and caring that accompanies friendship. Friendships allow sharing of similar interests. They provide the opportunity to trust and confide. They are a source of reciprocal nurturing and support. Friends can teach each other new skills, and provide opportunities for practise and growth. Friends can affirm each other and make each other feel important. Friends can create happiness.

Friends are also important to a child's social development. Through friendships, students learn the skills necessary for mature social interaction, such as negotiation and compromise.

From a parent's perspective, the fact that their child has friends is extremely important. Friendship tends to be equated with their child having a good self concept and overall happiness. Conversely, a lack of friendship is associated with loneliness and depression.

Unfortunately, individuals with intellectual or multiple disabilities often have fewer friends and fewer interactions with age appropriate peers than do individuals without a disability. The educational team can assist with this situation through making sure there are frequent opportunities for interaction, fostering the skills necessary for making and maintaining friends and understanding what is involved in classroom membership.

The Skills Associated with Friendship

The better the student's social competence, the better chance she/he has for friendship. Continued instruction in social competence, therefore, is important. Among the many skills that are necessary to maintain a friendship, competency in the following are considered fundamental and should be given high priority for instruction (Stainback and Stainback, 1996):

- displays of positive interaction, such as smiling and laughing;
- the ability to communicate a message to another person;
- the ability to listen actively;
- spontaneously sharing objects and feelings; and
- the ability to participate in a mutually enjoyable activity with another person.

Connectedness and Belonging

All students need to feel socially connected if they are to truly feel happy and competent (Kronberg, York-Barr, and Doyle, 1996). There tends to be a link between personal health and well-being and the presence of relationships in a person's life. Alienation can cause stress, discontent, physical ill health and damage to self-esteem.

What does it mean to be connected?

It is necessary, therefore, to understand what it means to belong within a classroom social structure and to attain classroom membership. Connectedness, or class membership, and a feeling of belonging depends on an affiliation with a particular subgroup of students in the classroom. It is important that students make conscious efforts to become connected by pursuing relationships (Schnorr, 1997). Participation and reciprocal interaction with classmates contribute to membership because they cause others to notice the individual and serve to demonstrate positive characteristics. For example, peer groups tend to enjoy light interaction such as humour, teasing and good-natured joking. Participating in shared tasks and interests on an ongoing basis is helpful. It is also beneficial to have a role within a subgroup, to be known for something of value, such as being happy or friendly. Following the classroom's unwritten student codes of support (like not telling on each other) is also meaningful.

What is membership?

Membership and belonging has been defined as the extent to which a student feels accepted, respected, included and supported by others in the class. Students feel connected in the class when they have friends, when they experience positive peer interaction, when they can actively participate in classroom activities and when they achieve success in their work.

Active participation in classroom activities and in social and communicative interactions among students and teachers, tends to be the most significant factor for membership. Personality and temperament is important. Students who display attentiveness, readiness to learn and an upbeat personality are more apt to become members. Physical disability has not been indicated to be a deterrent to membership, other than the limitations it may place on participation.

The teacher's role

Of all the individuals who have influence over classroom membership, the classroom teacher is in the most pivotal position (Williams and Downing,1998). Teachers can contribute to a student's feeling of connectedness by treating all students fairly and by making school work as active, interactive, constructivist, interesting and meaningful as possible, and allowing for student choice. The general perception of the connectedness of students with an intellectual or multiple disability by students without disability is usually positive given the following conditions:

- that the student is included and participates actively in most classroom activities;
- that the student is subject to the same rules as all students; and
- that the teachers treat the student in the same manner as all other students are treated.

The need to understand the peer group

A link between membership and peer perception of behaviour has also been suggested. Depending on local cultural and peer life style preferences, certain abilities are perceived as valuable by peers and, therefore, accepted. Other behaviours are perceived negatively and cause the student to be rejected. It is necessary, then, to understand local peer preferences and address their perceptions of behaviour and attitudes toward diversity and disability. Peer awareness programming may be required (Siperstein et al., 1996).

Strategies to Promote Friendships, Connectedness and Belonging

There are many ways in which the educational team can promote friendships, connectedness and belonging for the student with an intellectual or multiple disability. The following are examples.

1. **Provide optimal opportunity to interact with peers.** The first consideration is to maximize the student's opportunity to participate in classroom activities and social interaction within the school and community. Access to the necessary age appropriate natural environments is emphasized.

2. **Be creative with regard to the way that peers can be involved.** In addition to being a friend, 10 other social relationship possibilities are:
    - peer tutor;
    - eating companion;
    - art, home economics, industrial arts, music or physical education partner;
    - classroom companion;
    - at-school companion;
    - extracurricular companion;
    - after school project companion;
    - after school companion;
    - travel companion (to and from school or school events); and
    - neighbour (Demchak,1998).

3. **Address the student's repertoire of social skills and level of social competence.** The students social status should be continually monitored. Systematic social skill instruction leading to continued improvement in social competency is a necessary component of the PPP. Particular attention should be paid to instruction of friendship skills.

4. **Address the peer group's perception of behaviour.** It is necessary for the educational team to understand the peer group with which the student wishes to belong. Particular regard is given to what the peer group likes with respect to behaviour and personal attributes (e.g., dress, vocabulary).

5. **Address the peer group's perception of diversity and knowledge and awareness of disabilities.** Ideally, each student in a classroom should be valued as an individual with strengths and weaknesses. Diversity among peer groups is viewed as positive for the many benefits it may offer. Disability awareness instruction may be necessary if stereotyping behaviour among peers is present. Highlighting the similarities between individuals with and without a disability is important.

6. **Address the benefits that peers can experience through these friendships.** Through friendship with a person with a disability, peers without disability can benefit greatly. First and foremost is the possibility of a relaxed and accepting relationship. Growth in self-concept, greater understanding and accepting of diversity, greater tolerance of others and social-cognitive growth are also probable.

7. **Model positive attitudes.** The educational team can enhance the social status of a student with an intellectual or multiple disability by demonstrating genuine acceptance and positive interactions with the student. It is important that the language used during interactions with the student is age appropriate.

   The educational team can also model a commitment to facilitating friendships by encouraging peers to interact with the student and share ideas, experiences and items of interest.

8. **Teach students without disability some specific strategies for interaction.** Mutually satisfying relationships are most likely to develop when the rewards (positive feelings) outweigh the costs, such as physical and mental effort, embarrassment or anxiety (English et al., 1996). It is not unusual for peers without a disability to feel uncomfortable or lack confidence when interacting with a student with an intellectual disability or

multiple disability. It is important for the peer to know that this feeling can easily be overcome through frequent experience and by knowing specific strategies for maximizing interaction.

To be effective, peer interaction has to be meaningful and sustained. To accomplish this, specific training is necessary. It is recommended that peers are trained in:

- ensuring the student pays attention;
- offering the student choice;
- varying the activities;
- modelling appropriate social behaviour;
- acknowledging and reinforcing the student's attempts at participation;
- encouraging conversation;
- extending conversation;
- encouraging and modelling turn taking;
- narrating play; and
- modelling and teaching responsivity to multiple environmental cues (Pierce and Schreibman, 1997).

The peers are initially taught the strategies without the students with a disability being present. The peers are also given the opportunity to rehearse the skills and to receive feedback from the instructors. The strategies are then used in authentic situations under the supervision of the instructors. The instructor support is gradually faded, allowing spontaneous and independent relationships to develop.

Sensitivity training should also be considered. The premise is to sensitize peers to the types of behaviour that they will probably encounter as the student attempts to interact and communicate. The peers are then prepared for the behaviour and will interact appropriately (English et al., 1997).

When promoting friendships for students with significant multiple disabilities, peers may find interaction to be slow and frustrating. In this type of situation, it is important that peers be instructed with such skills as frequently prompting responses, maintaining proximity, identifying and using student preferences and attempting to get eye contact. Peers have to be taught how to look for the subtle indicators (e.g., smiling, laughing, eye contact, alertness, a relaxed body tone or an excited body tone) (Logan et al., 1998).

Peers may also need to be taught how to interact using an augmentative communication device and to understand particular types of adaptive equipment.

9. **Use instructional strategies and organization that promote interaction and participation.** The following strategies and structures may be considered for promoting student interaction:
   - cooperative learning;
   - peer tutoring;
   - buddy systems;
   - constructivist assignments;
   - active learning;
   - student choice in assignments;
   - assignments that acknowledge multiple intelligences, increasing the student's opportunity to display areas of strengths and achieve success;
   - an inclusive seating arrangement;
   - a partner program that includes weekly class meetings to discuss concerns and provide information about disabilities, adapting instruction and materials, etc.;
   - a variety of media that can serve as a basis for interactive exchange (e.g., computer software, toys, games, photo albums, books, play/sports equipment); and
   - an atmosphere of fairness, in which all students are subject to the same rules.

10. **Use adaptations to maximize student independence, probability of participation and interaction and possibility of success.**

11. **Encourage independence and self-determination.**

12. **Encourage opportunities for reciprocal support and friendship.** Real friendships are two-way. The student with an intellectual or multiple disability should have opportunities to give and receive help. It is important in terms of classroom status to play a contributing role.

13. **Be aware of the proximity, and that the presence of a teacher or paraprofessional may interfere with the natural flow of a friend-to-friend relationship.** Sometimes it is necessary to just get out of the way.

14. **Establish a natural support system.** Using *Circle of Friends* (Snow and Forest, 1987) or one of the other methods suggested, attempt to establish a system that supports the student in as many natural ways and contexts as possible.

Allowing choice of friends

A wide range of friendships is encouraged

It is important that students with intellectual or multiple disabilities have some choice regarding who their friends are. Typically, friends are chosen because of common interests and beliefs, and the chance to share these interests and beliefs in a reciprocal and equal opportunity manner. For the student with an intellectual disability this very often means choosing a friend who also has an intellectual disability, It is important that these relationships are also encouraged and supported through helping the students maintain the friendships over the long term. Assisting the student's social competence within this type of friendship (e.g., making phone calls to arrange to get together) is also very important.

Developing a Natural Support Network

An effective way of supporting on-going growth in a student's social competence is through a natural support network.

> "A natural support network is the set of individuals with whom a person has ongoing interactions in everyday life, reflecting various levels of friendship, caring, support, and assistance for both parties across a variety of activities. Members of a natural support network share a mutual respect and interdependence, each receiving intrinsic benefits from interactions" (Ryndak, 1996, p. 62).

Natural support network membership is defined according to the quality of interaction and length of commitment to the student. Over time, natural support network membership is developed through continual, conscientious, purposeful and mutually beneficial interactions. Possible members may include parents, siblings, relatives, neighbours, extended family, family friends, fellow participants in community or leisure activities, the educational team, classmates, co-workers, fellow employees, employer, business owner, business employees and community workers (Ryndak, 1996).

Natural support networks have the potential to provide four types of support:

- resource support consisting of materials, finances, information and personnel;

- moral support through person-to-person interactions;
- technical support such as strategies, methods, approaches or ideas; and
- evaluation support to monitor the effects of the network and the consequential adjustment to improve it if necessary.

Collaboration among natural support membership on behalf of the student cannot be left to chance. Members have to be first identified and then actively organized. Several methods for identifying members have been developed. One method is called *Circle of Friends* (Snow and Forest, 1987).

Circle of Friends

Circle of Friends utilizes the power of peers in facilitating social interaction. A group of students who are interested in helping the student with an intellectual or multiple disability to become a part of the school community is gathered together. A meeting is organized to discuss how support for the student can be provided. The meeting begins with asking the students to complete the following exercise.

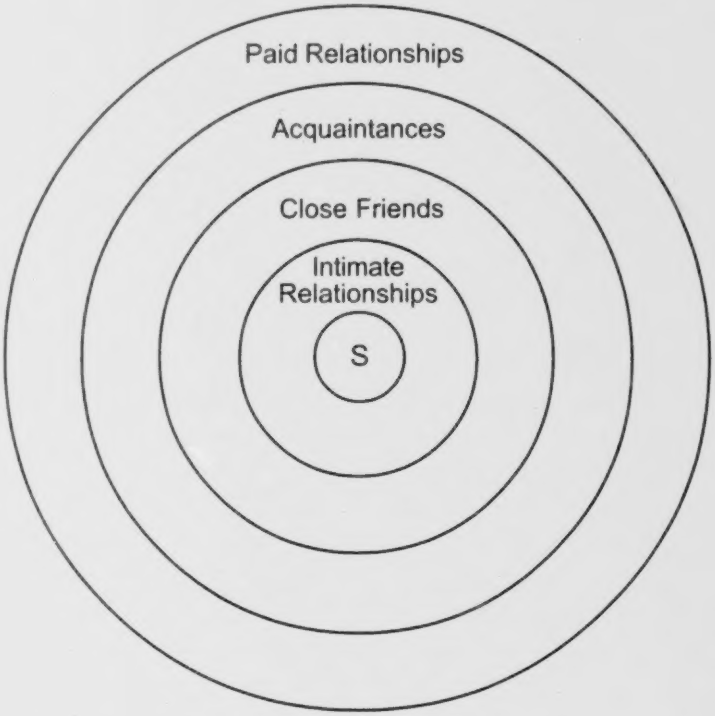
Figure 9.1. Circle of Friends

1. Draw a small circle. Put your name inside the circle. Around the outside of the circle put the names of the four people you love best in all the world. (Teacher should be doing this on the blackboard or on chart paper.) Students are then asked why they chose the four people and what kinds of things they might do with those people. The teacher can write responses on the chart or board.
2. Draw a second circle around the first. On this circle put the names of several close friends or family members that you like very much. Ask the students to describe these people and tell what the difference is between the people in the first circle and on the second. Record their answers.
3. Draw a third circle around the second. On this circle put the names of several people with whom you like to associate and do things with. Ask students to tell what the difference is between people in the second circle and the people in the third circle. Record their answers.
4. Draw a fourth circle around the third. On this circle put the names of those people who are paid to do things for you. Ask the students whose names are in the circle. Record their answers.
5. Ask the students to draw these circles again putting the name of the student with an intellectual or multiple disability in the middle. Most of these students will have names around the first and fourth circles. Have the students tell you how they would feel if their circle was similar.
6. Discuss with students how they might help address the gaps.
7. After this exercise the following questions are discussed:
    - What do we want for the student?
    - What don't we want?
    - What do we need to get started?
    - What are we afraid of?

(continued)

Figure 9.1. continued

8. The Circle of Friends then:
    - lists activities and the supports that may be needed for the student to be included
    - sets up support groups
    - sets up time lines for particular responsibilities



From Natural Support networks: Collaborating with family and friends for meaningful education programs in inclusive settings by D. L. Ryndak in *Curriculum content for students with moderate and severe disabilities in inclusive settings* (p. 64), D. L. Ryndak & S. Alpher (Eds.), 1996, Needham Heights, MA: Allyn & Bacon. Copyright 1996 by Allyn & Bacon. Reprinted with permission.

The Need for Systematic Instruction

The simple placement of a student with an intellectual or multiple disability into an inclusive environment does not ensure the spontaneous development of social skills, nor the formation of friendships with nondisabled peers. If given the choice of whom they would like for friends, students without disability typically will choose nondisabled peers (Rosenthal-Malek, 1998). Without support, students with intellectual or multiple disabilities run the risk of being rejected and socially isolated. On a more positive note, nondisabled students, if approached, typically feel that friendships between students with intellectual or multiple disabilities are possible and are usually willing to try (Hendrickson et al, 1996).

Physical inclusion is necessary for social skills development. Being close to nondisabled peers provides the needed opportunities for social interaction; however, **these opportunities have to be deliberately and systematically fostered on a regular and frequent basis** (Gelheiser et al., 1998).

Developing Social Competence

The Principles of Teaching Specific Social Skills

The following information is considered generic to teaching specific social skills to students with intellectual or multiple disabilities.

1. Social skills are learned in the same manner that any other skills or behaviours are learned.

2. The methods for instruction that have been outlined in *Chapter 7: Systematic Instruction* can be applied to teaching social skills. Some of the most useful methods are modelling, reinforcement strategies, rehearsal, feedback and social stories.

    - **Modelling** refers to the student observing then imitating a particular social skill. Through modelling students can learn both appropriate and inappropriate social skills. It is important, therefore, that the inappropriate versus appropriate nature of what is observed is interpreted for the student. Structuring the environments (as much as reasonably possible) to avoid inappropriate modelling is recommended.
    - **Reinforcing** the student's attempts and successes at learning is important. Although all types of reinforcement strategies may have to be considered, social reinforcement is ideal for:
        - ease of administration;
        - use by a number of individuals; and
        - enhancing generalization of the skills learned.
    - **Rehearsal** or role playing strategies give the student the occasion to practise the skills being learned under safe and supported conditions. Combined with reinforcement and modelling, rehearsal can be very effective.
    - **Feedback** refers to providing the student with information about her/his performance. The student is informed of what is expected and how she/he is functioning.

- **Social stories** (Gray, 1993) can be an effective method of introducing the social skill to be taught, establishing a rationale for the skill and explaining how the skill can be used. Social stories can also be used as a means for reviewing and reinforcing the skill.

3. To be effective, social skill instruction must be consistent, regular, and frequent.

4. Bearing in mind the difficulty that is typically experienced with memory and generalization, much of the instruction and practise should take place in real-life contexts (Rosenthal-Malek,1996).

The Skills Involved

There are a variety of resource books, manuals and commercial programs that teach social skills. Each of these resources provides either an overview, a general list or a scope and sequence of the social skills that are emphasized. Generally, the social skills emphasized for systematic instruction fall into the following categories (Elliot and Gresham, 1991).

- **cooperation** - helping others, sharing materials, complying with rules and paying attention;
- **assertion** - asking for information, introducing oneself and responding to others;
- **responsibility** - accountability, asking permission, attending and asking for help;
- **empathy** - understanding feelings, giving compliments and active listening; and
- **self-control** - dealing with conflicts, teasing and criticism and anger management.

When social skill development is being planned, consideration is also given to:

- the ability to understand nonverbal communication;
- receptive and expressive language skills;
- reading and written language skills (especially comprehension ability);
- speech skills (inflection, tone of voice, volume, and rate of speech);
- motor planning difficulties;
- imitation skills;
- range of interests; and
- sensory issues (Quill,1995).

There is also an explicit link and inevitable overlap between social skills and communication skills (Lindblad, 1996). Social communication skills, therefore, should also be targeted within social skill development programs (refer to Table 9.2).

Table 9.2. Social and Communication Skills

Introductory Skills	**General Interaction Skills**	**Peer Interaction Skills**	**Conflict Management Skills**	**Emotional Expression Skills**
• eye contact • manners • volume • choosing the right time and place • tone of voice • getting to the point • staying on the point • staying on topic • listening • starting and ending a conversation • proximity (personal space) • formal vs informal (casual) language • making a good impression • facial expression • staying on topic/switching topics	• interrupting • planning what to say • receiving a complement • giving a complement • saying thank you • introducing yourself • introducing two or more people • offering help • asking for help • asking for permission • accepting "No" • making an apology • stating an opinion • agreeing/ disagreeing • convincing others • giving information • dealing with contradictions • using and understanding idioms and puns	• starting a friendship • playing cooperatively • giving emotional support • attending and ignoring • responding to teasing • peer pressure • joining in • being left out	• being assertive • making a complaint • receiving a complaint • giving negative feedback • accepting negative feedback • dealing with false accusations • making an accusation • compromising/ negotiating • optimism	• expressing feeling • expressing anger • dealing with embarrassment • coping with fear • expressing "safe" humour • accepting "safe" humour • dealing with failure • expressing affection

Adapted from Lindblad (1996).

Refer to the *Resources* section of this chapter for a description of some of the more frequently used programs.

Assessment

Assessing social skills involves gathering information through observing the student in natural contexts and interviewing people who are significant in the student's life. Because of its subjective nature, social skill assessment commonly involves rating the student on a continuum of ability. *The School and Community Social Skills Rating Checklist* (Sargent, 1991, pp. 269-273) and *Teacher Skill Checklist* (McGinnis and Goldstein, 1990, pp. 30-33) are examples of rating checklists.

The assessment attempts to distinguish both strengths and weaknesses. In accordance, the program established for the student undertakes to provide opportunity for demonstrating strengths in natural social contexts with age appropriate peers, and instructional support for developing competence in the skills that require improvement.

The number of skills involved in social competence is extensive. The skills that are targeted for instruction, therefore, must be functional to the contexts of the student's life. The following questions are suggested as guidelines for selecting target skills.

- Is the skill truly inadequate or deficient according to the peer group with which the student will be associating?
- Does the student have the cognitive ability to learn the skill?
- Considering the life style the student leads, and the contexts she/he frequents, will the student have the opportunity to frequently practise the skill?
- Does changing the student's behaviour have importance to significant others in the student's life?
- Is the skill needed in current or future environments?
- Is acquisition of the skill essential to remain in current environments?

An effective social skill assessment also addresses the broader issue of the student's *quality of life*. Defining quality of life for any one individual is personal, but the constant components seem to be:

- the existence of a social network, and the size and effectiveness of the social network;
- the number of friends;
- frequency of interaction across different people (e.g., family, friends, peers, professionals); and
- satisfaction with current social situations (Storey, 1997).

Individual perspective and choice are important

Perhaps the most significant consideration regarding each of the above components is that they have to be addressed from the individual perspective and, most importantly, preference of the student in question. The number and size of peer friendship groups or the frequency of interaction may be less important than the quality of friendship and the interaction within the group. Some individuals, for example, are quite happy with one or two very close friends. For some, an increase in social interaction frequency might constitute increased stress, and an actual decrease in the quality of life experience.

Approaches to Teaching Social Skills

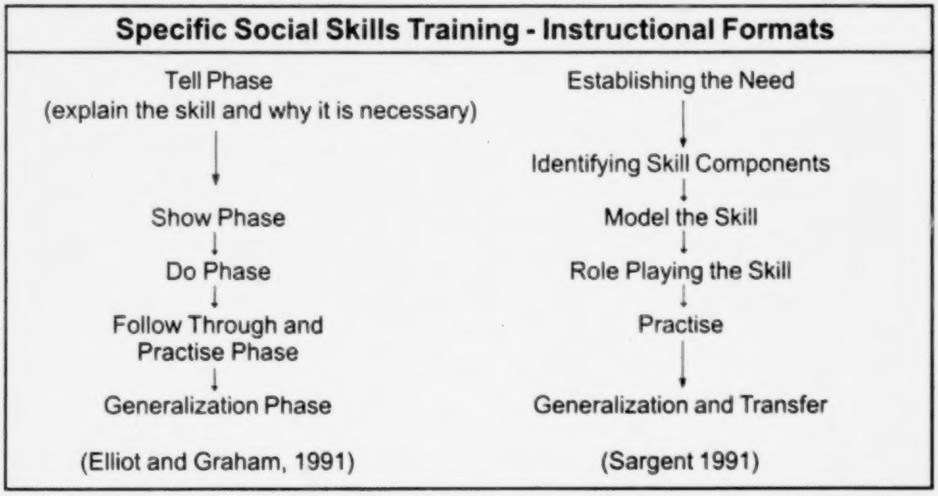
Two major approaches for improving social competence have been identified: (a) specific social skill training—a skills based approach, and (b) cognitive/metacognitive strategy training (Rosenthal-Malek, 1998).

1. Specific Social Skills Training

The premise of the social skills training approach is that social competence is developed through identifying and systematically teaching the underlying skills involved. The reliance is on directly training the specific skills. Once the skills have been targeted through assessment, direct teaching techniques are used to enhance the desired behaviour. Direct teaching approaches are also used to generalize the skills to a variety of contexts.

Specific social skills training is the procedure commonly utilized in commercially available programs (refer to Table 9.3). Lesson plans are constructed around rationalizing the need for the skills identified then using reinforcement, modelling, rehearsal and feedback as the primary teaching strategies. Generalization is also incorporated.

Table 9.3. Social Skills Training


Specific Social Skills Training - Instructional Formats
Tell Phase
(explain the skill and why it is necessary)
Show Phase
Do Phase
Follow Through and Practise Phase
Generalization Phase
(Elliot and Graham, 1991)
Establishing the Need
Identifying Skill Components
Model the Skill
Role Playing the Skill
Practise
Generalization and Transfer
(Sargent 1991)

Specific social skills training is most successful if the following recommendations are observed:

- social skills are taught in the same manner as any other academic subject;
- ample opportunity to use the newly acquired skills in natural settings is provided;
- generalization is not left to chance; rather, it is systematically facilitated; and
- the student receives feedback regarding her/his performance in the generalized settings (Rosenthal-Malek, 1998).

2. Cognitive/Metacognitive Social Skills Training

A focus on social awareness

Cognitive/metacognitive social skill training is concerned with strategies a student can use for responding within typical social situations. The focus is on social awareness and the adaptive application of this awareness toward social competence. The student develops the ability to generally understand social interaction and to be in control of their own social behaviour. The teacher's role is one of "an observer and evaluator, a planner and stimulator, and a mentor and collaborator" (Rosenthal-Malek, 1998, p. 112).

The philosophical assumption of this approach is that students with intellectual or multiple disabilities are quite capable of developing socially. What is typically lacking, however, is spontaneous executive functioning and metacognitive ability.

Executive functioning is the ability to organize information that is received or expressed. It includes such skills as identifying the general context of a social situation and predicting and planning for what is probably going to happen. Metacognition implies the awareness of one's own thinking process, and how well she/he is performing in this regard.

Cognitive/Metacognitive instruction focuses on decoding, deciding on and evaluating performance in social situations. This approach can be carried out through simulated situations, within natural settings or a combination of both. The premise is to be aware and to understand.

In the cognitive/metacognitive approach students are taught to:

- form definite objectives for social interaction;
- look for and interpret salient cues;
- predict what might happen next and plan, through self-questioning techniques, what behaviours would be best to use;
- execute the behaviour; and
- evaluate the effectiveness of the behaviour.

The initial stage requires the student to learn self-instruction and self-questioning. For example, when involved in a social situation, the students are taught to say to themselves:

- Stop and think!
- What is the situation/problem here?
- What can I do?
- What might happen if ...?
- How will the others feel?
- How will I feel?
- How has this worked in the past?

The students are then involved in specific social situations. The students are taught to recognize problem situations. For example, when no one is talking, someone wants to start a conversation, no one can decide what to play, someone wants to join the group or someone has been insulted. The teacher mediates the situation by encouraging specific thought processes and drawing the student's attention to various aspects that are relevant to the immediate problem. Self-questioning and problem solving techniques are facilitated. Reinforcement is given to the students whenever appropriate social skills are exhibited. Self-evaluation techniques are also fostered.

Cognitive/metacognitive social skills training is most successful if the following recommendations are observed:

- training takes place within natural settings as much as possible;
- instruction takes place in groups, preferably heterogeneous grouping;
- use of adult guidance is gradually reduced and student regulation is encouraged; and
- correct procedures are discovered through guided questions and mutual agreement. The teacher establishes a reciprocal student-teacher situation by turning student requests for advice back to the students for discussion and giving suggestions if needed. Gradually the students learn to spontaneously self-question and self-regulate at the appropriate times (Rosenthal-Malek, 1998).

3. Instructional Settings

Social competence is learned through opportunity for interaction with others in a variety of contexts. The people with whom the interaction takes place and the instructional setting are important factors. Inclusive socialization experiences in all facets of the student's community are crucial. It is often the circumstance that students with intellectual or multiple disabilities lack social competence primarily because they lead socially isolated lives. Ideally, students with intellectual or multiple disabilities have to learn how to function and be accepted in inclusive settings, and the student's nondisabled peers have to learn how to interact and function with people with disabilities.

The need to involve nondisabled peers as part of the instructional context is particularly important. Students with significant multiple disabilities tend not to initiate interaction (e.g., social and motor responses such as eye contact and smiling). Nondisabled peers are in the best position to illicit this behaviour.

4. Maintenance of Social Skills and Generalization to Multiple Contexts

The specific social skills training and the cognitive/metacognitive social skills training can be highly effective for acquiring the actual skills. However, there is concern regarding how well skills are maintained and generalized to multiple contexts if direct instruction in specific skills is the only approach used.

Generalization is defined as an efficient display of a social skill across a variety of contexts and people, without requiring intervention. Maintenance is the continued performance of a skill over a period of time. Maintenance and generalization do not automatically occur simply because a skill has been learned. This ability has to be facilitated systematically (Black and Langone, 1997).

Skill training without addressing the broader issues of social awareness and social competence decreases the likelihood of successful maintenance and generalization. It is generally agreed that executive functioning and metacognitive ability underlie successful generalization. The cognitive/metacognitive approach, therefore, would lend itself to automatic generalization. This approach, however, may lack the thoroughness and systematic nature that is necessary for instructing students with intellectual or multiple disability. Blending elements from both approaches, therefore, is recommended. For example, specific skills are targeted for intervention, and are specifically modelled and rehearsed with appropriate feedback given. Within the systematic instruction executive functioning and metacognitive skills are also taught and reinforced. To measure the extent of generalization, the student is monitored with regard to daily ongoing social interaction in natural settings. Intervention can also take place in the natural settings. In addition, data from the daily monitoring can be used to develop future lessons.

Resources

Alexander, D., Adams, B., & Stanfield, J. (1983). *TIPS: Teaching interpersonal skills to persons with developmental disabilities.* Santa Barbara, CA: James Stanfield Co., Inc.

This resource includes 7 videotapes:

TIPS for Getting Along with Others
TIPS for Getting to Know Others
TIPS for Getting Along with Adults
TIPS for Making Friends
TIPS for Enjoying Free Time
TIPS for Community Living
TIPS for on the Job

Champagne, M. P., Walker-Hirsch, L. (1993). *Circles. Intimacy and Relationships.* Santa Barbara, CA: James Stanfield Co., Inc.

- This program is designed for students with learning disabilities, mild to severe intellectual disabilities, sensory impairments and affective disorders.
- It teaches concepts of personal space and social distance through the use of 6 color-coded circles.
- Strategies and materials include video modeling, use of role-play floormat, cut and paste icons, personal CIRCLES graphs.
- The resource is appropriate for high school, and Part 1 could also be used for upper elementary.

Part I: Relationships — 6 videotapes
PartII: Relationship Building — 6 videotapes

Downer, A., & Stanfield, J. (1990). *Being with people. Part 1: Being with friends.* Santa Barbara, CA: James Stanfield Co., Inc.

- Content includes developing friendships, making introductions, listening skills and qualities of trusted friends.
- Video modelling demonstrates successful and unsuccessful ways of relating to others.
- Detailed lesson plans with role plans and extended activities are included.

Elliott, S. N., & Gresham, F. M. (1991). *Social skills intervention guide: Practical strategies for social skills training.* Circle Pines, MN: American Guidance Service, Inc. (distributed in Canada by PSYCAN).

- A manual for planning and implementing social skills programs for the general student population. It is a very comprehensive guidebook which also includes some skills units. Adaptations need to be made for students with intellectual and multiple disabilities.

Jackson, D. A., Jackson, N. F., Bennett, M. L., Bynum, D. M., & Faryna, E. (1991). *Learning to get along. Social effectiveness training for people with developmental disabilities.* Champaign, IL: Research Press.

- The resource includes a program guide and group training manual.
- Teaching strategies vary slightly from other programs; incidental as well as planned teaching strategies are included.

McGinnis, E., & Goldstein, A. P. (1990). *Skillstreaming in early childhood. Teaching prosocial skills to the preschool and kindergarten child.* Campaign, IL: Research Press Company

- The book includes assessment procedures for grouping students and skill lesson plans for 40 specific prosocial skills. It also includes a *Program Forms* booklet with assessment forms, recording forms, handouts and awards to reinforce skill use. The basic instructional format includes: identifying the situation in which skill is used, presenting behavioral steps, modelling, role playing, performance feedback and transfer training.

Sargent, L. (1991). *Social skills for school and community. Systematic instruction for children and youth with cognitive delays.* Des Moines, Iowa: Council for Exceptional Children.

- This manual outlines direct instruction of social skills at the primary, intermediate, middle school and high school levels. It includes lesson plans at each level and a social skills rating checklist.

Stanfield, J. (1995). *BeCool Upper Elementary*. Santa Barbara, CA: James Stanfield Co., Inc.

- The Video Series: *Coping with Difficult People* has 5 modules:
  - Coping with Criticism (3 videotapes)
  - Coping with Teasing (3 videotapes)
  - Coping with Bullying (4 videotapes)
  - Coping with Anger/Other (2 videotapes)
  - Coping with Anger/Self (2 videotapes)

Stanfield, J. (1997). *BeCool Middle Elementary*. Santa Barbara, CA: James Stanfield Co., Inc.

- The Video Series: *Coping with Difficult People* has 5 modules:
  - Coping with Criticism (3 videotapes)
  - Coping with Teasing (2 videotapes)
  - Coping with Bullying (3 videotapes)
  - Coping with Anger/Other (2 videotapes)
  - Coping with Anger/Self (2 videotapes)

The John Dolan Library at the Saskatchewan Association for Community Living (SACL), is also a source of materials. The SACL librarian can be reached by phoning (306) 955-3344.

Recommended Reading

Alper, S. (1996). Interacting with nondisabled peers. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 139-153). Needham Heights, MA: Allyn and Bacon.

Black, R. S., & Langone, J. (1997). Social awareness and transition to employment for adolescents with mental retardation. *Remedial and Special Education, 18*(4), 214-222.

Cooper, C. S., & McEvoy, M. A. (1996). Group friendship activities: An easy way to develop the social skills of young children. *Teaching Exceptional Children, 28*(3), 67-69.

Demchak, M. (1998). Facilitating friendships and social relationships between students with disabilities and their peers. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 185-190). Austin, TX: PRO-ED, Inc.

Downing, J. E. (1996). *Including students with severe and multiple disabilities in typical classrooms: Practical strategies for teachers.* Baltimore: Paul H. Brookes Publishing Co.

Elliot, S. N., & Gresham, F. M. (1991). *Social skills intervention guide: Practical strategies for social skills training.* Circle Pines, MN: American Guidance Service, Inc.

Gelheiser, L. M., McLane, M., Meyers, J., & Pruzek, R. M. (1998). IEP-specified peer interaction needs: Accurate but ignored. *Exceptional Children, 65*(1), 51-66.

Hendrickson, J. M., Shokoohi-Yekta, M., Hamre-Nietupski, S., & Gable, R. A. (1996). Middle and high school students' perceptions on being friends with peers with severe disabilities. *Exceptional Children, 63*(1), 19-28.

Hunt, P., Alwell, M., Farron-Davis, F., & Goetz, L. (1996). Creating socially supportive environments for fully included students who experience multiple disabilities. *The Journal of the Association for Persons with Severe Handicaps, 21,* 53-71.

Hunt, P., Farron-Davis, F., Wrenn, M., Hirose-Hatae, A., & Goetz, L. (1997). Promoting interactive partnerships in inclusive educational settings. *The Journal of the Association for Persons with Severe Handicaps, 22*(3), 127-137.

Kronberg, R. M., York-Barr, J., & Doyle, M. B. (1996). *Module 2: Curriculum and everything students learn in school: Creating a classroom community: Facilitator guide.* Baltimore: Paul H. Brookes Publishing Co.

Logan, K. R., Jacobs, H. A., Gast, D. L., Streu Murray, A., Daino, K., & Skala, C. (1998). The impact of typical peers on the perceived happiness of students with profound multiple disabilities. *The Journal of the Association for Persons with Severe Handicaps, 23*(4), 309-318.

McGinnis, E., & Goldstein, A. P. (1990). *Skill streaming in early childhood: Teaching prosocial skills to the preschool and kindergarten child.* Champaign, IL: Research Press.

Prater, M. A., & Bruhl, S. (1998). Acquiring social skills through cooperative learning and teacher-directed instruction. *Remedial and Special Education, 19*(3), 160-172.

Rosenthal-Malek, A. (1998). Development of friendships and social competence. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 107-116). Austin, TX: PRO-ED, Inc.

Ryndak, D. L. (1996). Natural support networks: Collaborating with family and friends for meaningful education programs in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 61-76). Needham Heights, MA: Allyn and Bacon.

Sargent, L. (1991). *Social skills for school and community: Systematic instruction for children and youth with cognitive delays.* Des Moines, IA: Council for Exceptional Children.

Schnorr, R. F. (1997). From enrollment to membership: "Belonging" in middle and high school classes. *The Journal of the Association for Persons with Severe Handicaps, 22*(1), 1-15.

Siperstein, G. N., Leffert, J. S., & Widaman, K. (1996). Social behavior and the social acceptance and rejection of children with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(4), 271-281.

Stainback, S., & Stainback, W. (1996). *Inclusion:A guide for educators.* Baltimore: Paul H. Brookes Publishing Co.

Williams, L. J., & Downing, J. E. (1998). Membership and belonging in inclusive classrooms: What do middle school students have to say? *The Journal of the Association for Persons with Severe Handicaps, 23*(2), 98-110.

10

Social-Sexual Development

The Chapter at a Glance

Sexuality of Persons with Intellectual or Multiple Disabilities as Normal and Acceptable

The Development of Sexuality

The Need for Programming and Systematic Instruction

Curricular Components

Sexuality as Normal and Acceptable

Over time, society has been slow to acknowledge and reluctant to accept or support the concept of sexuality and persons with intellectual or multiple disabilities. A history of labelling, segregation and differential treatment that has often denied sexuality has left the impression that persons with intellectual or multiple disabilities are nonsexual. That is not the case.

Sexual development for persons with intellectual or multiple disabilities takes a very normal path. Issues of sexual development accompany each stage of overall development. Moreover, as persons with intellectual or multiple disabilities pursue inclusive life styles in education, employment, social and church environments, we can expect many to perceive sexuality as normal and acceptable, and to assume sexual roles in the same manner as most of the population (Van Dyke, 1995).

The Development of Sexuality

As with all children, the development of sexuality and a sexual self-concept begins at birth and is present at each stage of development. For infants and preschool children the primary task is forming attachments to parents and other family members. For school-aged children the issues of modesty, privacy, personal safety, personal hygiene, self-esteem and masturbation are foremost. With adolescence and adulthood the issues centre on sexual behaviour and responsibility, dating, marriage, sexual intercourse, reproduction, pregnancy, parenting, sexual abuse and sexually transmitted disease (Van Dyke, 1995).

The Need for Programming and Instruction

A natural outcome of inclusive principles is the development of self-determination, and the justified privilege of making life direction choices. Included within these choices is sexual expression. Unfortunately, persons with intellectual or multiple disabilities tend to have limited information on sexual matters. The past's pervasive social taboo against sexual contact for persons with intellectual or multiple disabilities has often resulted in depersonalization, unsure attitudes about sexuality and vulnerability. People with intellectual or multiple disabilities, as a group, are less likely to have experienced an intimate relationship but are more likely to become pregnant or acquire a sexually transmitted disease as a result of sexual victimization. As well, they are less likely to have felt close to someone or to be in love, but more likely to experience unwanted sexual contact (McCabe and Cummins, 1996).

Persons with intellectual or multiple disabilities have to know the difference between sexually appropriate behaviour, sexually inappropriate behaviour and sexually abusive behaviour. Moreover, they will likely need systematic instruction if they are to acquire this knowledge. Hence, there is a need for socio-sexual education programs (Bambury, Wilton and Boyd 1999; Jurowski and Amado, 1993).

Curricular Components

Students with an intellectual disability or multiple disability require a program that teaches facts about sexuality, responds appropriately to challenging questions and assists parents with supporting their child to develop sexuality. Furthermore, the curriculum needs to provide much more than an explanation of sexual intercourse or reproduction. It should provide instruction in human sexual behaviour which encompasses interpersonal relationships, physiological and emotional compulsions, care of one's body and avoiding exploitation (Walcott, 1997).

Much of what is emphasized tends to parallel the concepts presented in the regular education curriculum guides (refer to the Saskatchewan Education Health Education Curriculum Guides for the Middle Level - Grades 6-9, High School Wellness 10, Life Transition 20 and Life Transition 30).

Specifically, the curriculum may include information on any combination of the following:

- puberty;
- positive attitudes toward sexuality;
- the reproductive processes and reproductive health;
- male/female differences;
- menstruation;
- masturbation;
- sexual intercourse;
- control of physiological and emotional impulses and self-regulation;
- birth control;
- pregnancy;
- interpersonal relationships, friendships and attachments;
- dating;
- self-esteem;

- love;
- appropriate and responsible versus inappropriate and irresponsible sexual behaviour;
- assertiveness training, protecting self from inappropriate advances and identification and prevention of sexual exploitation;
- personal hygiene;
- physical exercise;
- nutrition;
- sexually transmitted disease, particularly the HIV virus and AIDS;
- marriage; and
- parenting.

Sexuality is an important aspect of student development. The specifics that are actually taught to the student should be stated in the student's personal program plan. Furthermore, the specifics are prioritized in the same manner as other goals and objectives, according to age, ability and stage of development, functional need and student preference.

Parents should be involved as much as possible in establishing program content, expressing concerns, and helping to reinforce, maintain and generalize learned behaviour. Cultural and religious values should also be recognized. All programming should be reviewed with the parents prior to presentation to the student. Many parents may wish to take the lead with regard to sexuality instruction and have the school reinforce the behaviour that the parents have prioritized.

The challenge for educators is to assist with the development of an individual sexual identity. To do this effectively, the educational team needs to develop a sense of the actual needs from the perspective of the person with intellectual or multiple disability. A program is developed to meet the student's specific needs; it is not a simple matter of imposing the values typically experienced by those without disabilities.

Resources

There are a number of resources that are available to assist the instructional team.

The John Dolan Library, located at the Saskatchewan Association for Community Living office in Saskatoon (phone 306-955-3344) has a wide selection of resources that can be borrowed by Saskatchewan families and educators.

The following resources offer instruction through video format presentation. These resources are available through the James Stanfield Co. Inc.

Circles I: Intimacy and Relationships.

Life Horizons I: The Physiological and Emotional Aspects of Being Male and Female.

Life Horizons II: The Moral, Social and Legal Aspects of Sexuality.

Sexuality Education for Persons with Severe Developmental Disabilities.

Life Facts: Sexuality and Life Facts.

Changes in You.

Other resources include:

Melberg Schwier, K., and Hingsburger, D. (2000). *Sexuality, your sons and daughters with intellectual disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Recommended Reading

Hingsburger, D. (1995). *Just say know: Understanding and reducing the risk of sexual victimization of people with developmental disabilities*. Edmonton, AB: Diverse City Press Inc. / La Presse Diverse Cite Inc.

Jurowski, E., & Amado, A. N. (1993). Affection, love, intimacy, and sexual relationships. In A. N. Amado (Ed.), *Friendships and community connections between people with and without developmental disabilities* (pp. 129-151). Baltimore: Paul H. Brookes Publishing Co.

McCabe, M. P., & Cummins, R. A. (1996). The sexual knowledge, experience, feelings and needs of people with mild intellectual disability. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(1), 13-21.

Scotti, J. R., Nangle, D. E., Masia, C. L., Ellis, J. T., Ujcich, K. J., Giacoletti, A. M., Vittimberga, G. L., & Carr-Nangle, R. (1997). Providing an AIDS education and skills training program to persons with mild developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 113-129.

Walcott, D. D. (1997). Education in human sexuality for young people with moderate and severe mental retardation. *Teaching Exceptional Children,* 29(6), 72-74.

Whitehouse, M. A., & McCabe, M. P. (1997). Sex education programs for people with intellectual disability: How effective are they? *Education and Training in Mental Retardation and Developmental Disabilities, 32*(3), 229-240.

11

The Issue of Abuse

The Chapter at a Glance

The Prevalence of Abuse among People with Disabilities

The Long-Term Effects of Abuse

Preventing Abuse

The Prevalence of Abuse Among People with Disabilities

Studies using a conservative definition of child sexual abuse (unwanted sexual assault involving physical contact) indicate that 7% of girls in Canada and 5% of boys are sexually abused by the age of 16. Since fewer than 10% of children who are abused ever tell anyone about it, the real incidence is likely much higher (Sobsey, Wells, Lucardie and Mansell, 1995).

"One large scale study of a nationally representative sample of abused children in the United States found that children with disabilities were 70% more likely to be abused than children without disabilities. The incidence of physical abuse was more than twice as high and the incidence of sexual abuse was 80% higher than the corresponding risk for children without disabilities" (Sobsey et al, 1995, p xii).

The statistics on abuse of individuals with disabilities indicate an increased incidence of physical and sexual abuse. A 1994 Statistics Canada survey indicated that 29% of females without disabilities have been physically or sexually assaulted by their partners. The same survey suggested that of females with disabilities, 39% have been physically or sexually assaulted by their partners; 74% have experienced physical violence; and 38% have experienced sexual violence (Statistics Canada, Centre for Justice Statistics, 1994). A study presented by the Disabled Women's Network has suggested that 83% of women with disabilities will be sexually assaulted in their lifetime (Stimpson and Best, 1991).

Sobsey and colleagues (1995) present additional information from selected research studies.

- Each year in the United States and Canada an estimated 150,000 children become disabled because of abuse.
- Of women with a disabilities surveyed, 73% had been victims of violence.
- Of persons with a physical disability surveyed, 10% had been physically assaulted.
- Adults with intellectual disability are 2.9 times more likely to be victims of a physical assault and 10.7 times more likely to be victims of sexual assault then adults without a disability.

The Long-Term Effects

The effects of abuse are devastating and long term. Abuse victims may suffer from low self-esteem, have an inability to trust and an inability to form meaningful close relationships. Instilled vulnerability, weak motor development, a lack of social competency and underachievement or lack of achievement are also possible results.

Preventing Abuse

The specific causes of abuse toward individuals with an intellectual or multiple disability are many and varied. It is a vast and complex issue. Like all abuse, it arises out of lack respect and regard for others. The most obvious reason is the high degree of vulnerability projected by persons with disabilities, usually because of weak problem solving ability, communication skills and socio-sexual knowledge and experience. Furthermore, society has appeared ambivalent to the issue and there have been insufficient support services for persons with disabilities who have been abused.

Much can be done, however, to prevent abuse and/or the recurrence of abuse. The following are examples of what can be organized.

1. **Report all suspicions and disclosures;** realize the responsibility to report and the immense costs of failing to do so.

   Staff members have a duty to report suspicions of abuse and/or actual disclosures of abuse. School divisions have the responsibility to develop a protocol that outlines procedures to be taken when abuse is suspected or disclosed. It is important that staff members are aware of this protocol and follow the procedures explicitly. It is also important that staff members realize that their responsibility is only to report the indicators, and not to conduct an interview with the student.

2. **Provide parent awareness and teacher training** about the prevalence of abuse, the vulnerability of individuals with intellectual or multiple disabilities, and the indicators of physical and sexual abuse and neglect. It is important that schools work closely with families regarding the entire issue of abuse.

Table 11.1. Common Signs of Abuse

All Forms of Abuse

- Direct observation
- Withdrawal
- Resistance to touch
- Fear of specific caregivers
- Poor self-esteem
- Victimization of others
- Disclosure
- Escape behavior
- Hypervigilance
- Sleep distrubances
- Passivity
- Re-enactment
- Fear of specific environment
- Self-abuse
- Stoical responses to discomfort
- Inapporpriate behavior
- Behaviour regression

Physical Abuse

- Frequent injury
- Unexplained coma
- Noncompliance
- Unexplained injury
- Threats
- Atypical injury
- Aggression
- Unreported fractures
- Patterned injury
- Temporally dispersed injuries

Sexual Abuse

- Genital irritation
- Aggression
- Resistance
- Noncompliance
- Gender-specific fear
- Promiscuity
- Threats
- Sexual precocity
- Extreme withdrawal
- Inappropriate sexual behaviour
- Unexplained pregnancy
- Sexually transmitted disease

Neglect

- Low affect
- Dehydration
- Indifference to other people
- Unusual need for attention
- Poor nutritional status
- Stoical responses to discomfort
- Untreated illness or injuries

Abusive Caregiver Traits

- Authoritarian behaviour
- Seeks opportunities to be alone with the student
- History of violence or coercion
- Dehumanizing attitudes
- Difficulty relating to authority
- Abusive counterculture in setting
- Grooming behavior
- Competition with child
- Rationalization and euphemism
- Unusual concern for privacy
- Use of alcohol or disinhibiting drugs
- Problems with self-control
- Negative evaluation of child
- Failure to support abuse control measures
- Subverts investigation
- Blames victim
- Tests limits and boundaries
- Self-reports of stress

From: Children with special health care needs by D. Sobsey and M. Thupal in *Educating children with multiple disabilities: A transdisciplinary approach* (3rd ed) (p. 208), by F. P. Orlelove and D. Sobsey, (Eds), 1996. Baltimore: Paul H. Brookes Publishing Co. Copyright 1996 by Paul H. Brookes Publishing Co. Reprinted with permission.

3. Break the apparent *code of silence* by helping victims and support personnel to realize that it is a pervasive issue that needs to be stopped.

4. Be supportive of a student who discloses abuse. It is also important to realize that disclosure may be a difficult thing for a student with an intellectual or multiple disability.

5. Realize the importance of a positive self-image and self-esteem, and assist students to develop in this manner.
6. Provide communication skill training, which can decrease vulnerability and increase the opportunity for disclosure.
7. Provide sexual education programs that promote a positive attitude toward sexuality and respect for self.
8. Teach the student to recognize abusive situations.
9. Do not place an over emphasis on obeying authority and submissive behaviour. Teach assertiveness, saying "no", and asking for help when in trouble.
10. Provide community awareness and information about disabilities, attempting to increase sensitivity and understanding.
11. Promote attitude changes toward a positive perception of persons with intellectual or multiple disabilities.
12. Use appropriate and positive language to describe individuals with an intellectual or multiple disability. Avoid labels and stereotyping as they tend to increase social distance.
13. Debunk the myths about the sexuality of persons with an intellectual or multiple disability; that is:
    - that they provoke abuse;
    - that they are eternal children;
    - that they must be protected from society; and
    - that sexually inappropriate behaviour is a direct result of the disability.
14. Develop community supports and access to regular support services and counselling.
15. Reduce isolation, over-protectiveness, and lack of awareness by promoting inclusion in education and community activities.
16. Develop independent decision making and other requisites for self-determination.
17. Develop a natural support network for the student, with the family as the focal point.
18. Ensure that instruction in social competence is a major component of the student's personal program.

Resources

The are a number of resources that are available to assist the instructional team.

- The John Dolan Library, located at the Saskatchewan Association for Community Living office in Saskatoon (phone 306-955-3344) has a wide selection of resources that can be borrowed by parents and educators in Saskatchewan.
- The resources outlined in *Chapter 10: Social-Sexual Development* are also relevant.
- Other resources include:

  Hingsburger, D., (1995). *Just say know! Understanding and reducing the risk of sexual victimization of people with developmental disabilities.* Eastman, PQ: Diverse City Press.

  Melberg Schwier, K., & Hingsburger, D. (2000). *Sexuality, your sons and daughters with intellectual disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Recommended Reading

Orelove, F. P., & Sobsey, D. (1996). *Educating children with multiple disabilities: A transdisciplinary approach* (3rd ed.). Baltimore: Paul H. Brookes Publishing Co.

Pearson, S. (1996). Child abuse among children with disabilities: Implications for special educators. *Teaching Exceptional Children, 29*(1), 34-37.

Sobsey, D., Wells, D., Lucardie, R., & Mansell, S. (1995). *Violence and disability: An annotated bibliogaphy.* Baltimore: Paul H. Brookes Publishing Co.

12

Promoting Positive Behaviour

The Chapter at a Glance

Positive Programming: The Basic Process for Behaviour Management

Background: The Universal Need for a Quality of Life

Defining Inappropriate Behaviour
  Criteria
  Basic Assumptions About Behaviour

The Functional Assessment
  Data Collection
  Developing a Hypothesis

Strategies for Intervention: Positive Programming and Positive Behavioural Support
  Major considerations
  General Approaches for Intervention
  Specific Strategies
  Managing Aggressive Behaviour

Positive Programming: The Basic Process for Behaviour Management

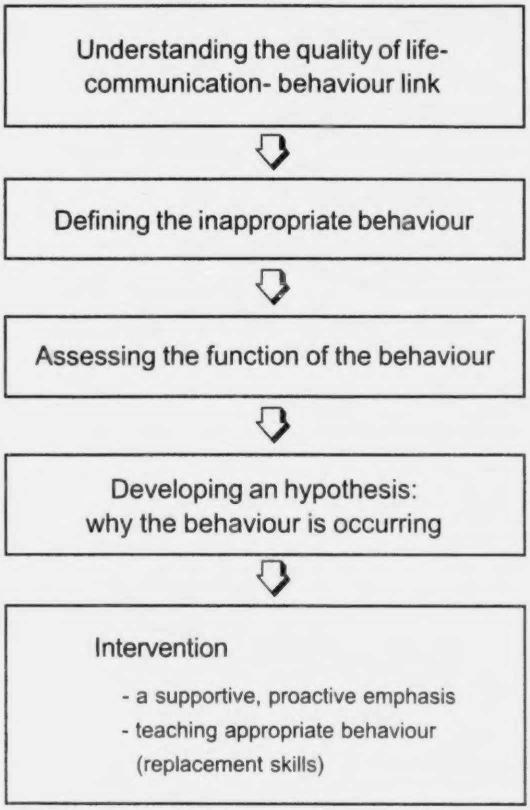
When any student behaves inappropriately within a classroom or social context it can seriously affect social status and membership in a peer group. Inappropriate behaviour can be a significant barrier to inclusive education, often causing students to be permanently excluded. Assisting students to act appropriately, therefore, is an important part of their program.

It cannot be assumed that the student knows the appropriate way of behaving

For the student with an intellectual or multiple disability a major consideration for programming is whether or not she/he is aware of the appropriate way of acting. *It cannot be assumed that the student has this awareness* and, consequently, instruction in the appropriate behaviour comprises a major part of the behaviour management process.

The basic process for positive programming is outlined in Figure 12.1. Each of the steps indicated is explained in greater detail within this chapter.

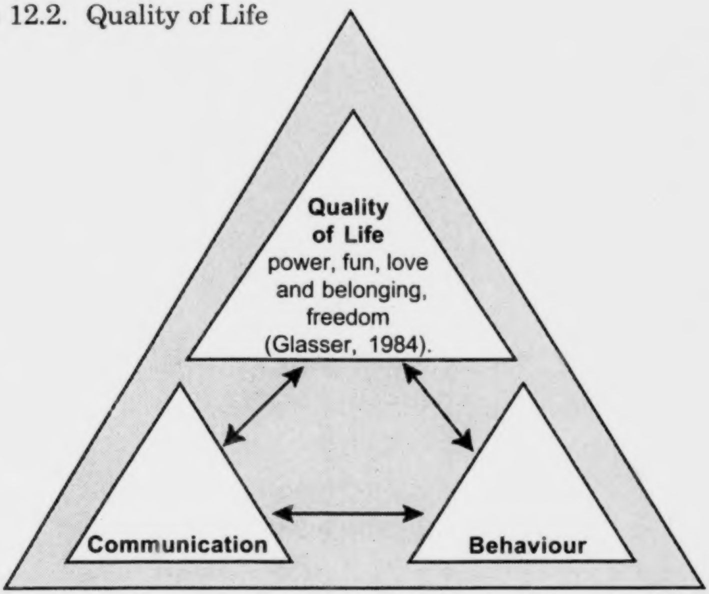
Figure 12.1. Positive Programming


Understanding the quality of life-communication- behaviour link
Defining the inappropriate behaviour
Assessing the function of the behaviour
Developing an hypothesis: why the behaviour is occurring
Intervention
- a supportive, proactive emphasis
- teaching appropriate behaviour (replacement skills)

Background: The Universal Need for a Quality Life

To assist a student to act appropriately it is first necessary to understand why the inappropriate behaviour may be occurring. To understand why the behaviour may be occurring it is necessary to consider the link among behaviour, communication and quality of life (see Figure 12.2).

Figure 12.2. Quality of Life



Individual human behaviour tends to be based on internal motivation, and internal motivation flows from what each individual values as important. Individuals seek a quality world, and each individual has specific needs that are valued as quality of life indicators. These needs fall within four fundamental categories:

- the need for a sense of power over one's life;
- the need to have fun;
- the need for a sense of belonging and to feel loved; and
- the need for a sense of freedom within one's life direction (Glasser, 1984).

Typically, individuals attempt to satisfy needs through their behaviour. If analyzed, all incidences of *acting out* (e.g., raised voice, refusal to cooperate, anger, shouting or pouting) usually can be attributed to one or more of the above needs not being met.

The need for a quality world is universal. Regardless of intellectual capacity, all individuals want quality in their life. All want to feel happy and successful, to be regarded by others as strong and responsible and to experience positive relationships.

As educators, our task is to help students with intellectual or multiple disabilities access their quality world. Power, fun, love, belonging and freedom should be accessed in a healthy and responsible manner that does not interfere with the rights of others. It is essential to bear in mind that the student with an intellectual or multiple disability may not understand or be aware of the appropriate way(s) for fulfilling these needs.

Defining Inappropriate Behaviour: Criteria and Basic Assumptions

Criteria

The initial step for behaviour management is to consider whether or not the behaviour is, in fact, inappropriate or problematic. A number of factors have to be considered. Inappropriate behaviour is defined as any behaviour that:

- is injurious to self or others;
- interferes with learning; either one's own or that of others;
- interferes with skills that have already been learned, by causing a plateau in learning or actual regression;
- is disruptive to self or others;
- precipitates additional problem behaviours or emotional reactions in self or others; or
- causes social exclusion.

In addition to the above criteria, to be considered inappropriate the behaviour should be significant with respect to frequency, intensity, duration and discrimination (Hingsberger,1995) (see Figure 12.3).

Figure 12.3. Frequency, Intensity, Duration and Discrimination (FIDD)

Frequency	Most behaviour can be tolerated if it happens only occasionally. To be termed "inappropriate" it must occur frequently enough to be disruptive or injurious.
Intensity	The behaviour becomes too intense in nature. Aggressiveness in study habits or in a debating session, for example, is a valued characteristic; hitting someone with a fist is considered too aggressive.
Duration	The behaviour lasts for an abnormal length of time.
Discrimination	Discrimination, or lack of discrimination, refers to the context in which the behaviour occurs. Swearing is more tolerable in a pool hall than it is in the classroom, for example. Running is the norm when in the gymnasium, but is inappropriate in the hallway. (Hingsberger, 1995)

Basic Assumptions About Behaviour

Two interrelated assumptions about behaviour are fundamental to understanding particular behaviours and successfully managing any form of inappropriateness. These assumptions are that *behaviour is purposeful* and that *behaviour is defined by context.*

1. Behaviour is Purposeful

All behaviour has an intent; that is, there is a relationship between the exhibited behaviour and the desired outcome. Behaviour is purposeful and serves a function for the student. Often, because the student is unable to speak and/or has no other means for expression, behaviour may become a primary and very functional form of communication. Typically, the function of behaviour falls within one or more of the following categories:

- to gain attention;
- to gain approval;
- to gain acceptance;
- to gain power or control;
- to gain justice or revenge;
- to obtain a tangible reward;
- to gain access to an activity;
- for sensory stimulation;
- for self-entertainment;
- to self-regulate (adjust energy, arousal and/or attention levels);
- to escape or avoid something;
- for protection; and
- to express emotion.

2. Behaviour is Defined by Context

Context is an important consideration when examining behaviour. Behaviour seldom occurs in isolation. Rather, it is usually in response to environmental determinants or the reinforcement provided within the particular context. Behaviour is usually related to the reinforcing antecedents that precede it and/or to the reinforcing consequences that follow it. Moreover, the consequences (the reaction to) a particular behaviour may act as an unintended antecedent to a subsequent other behaviour. A complex cyclical effect is then set in motion through contextual reinforcement.

The Functional Assessment

All behavioural intervention should be based on a functional assessment. A functional assessment is used to uncover the purpose of the behaviour; that is, the reason(s) for the behaviour and what the student hopes to achieve. In order to uncover the purpose, the educational team thoroughly analyzes all environments in which the student participates. The conditions that occur before, during and after the behaviour occurs are looked at closely. For example, within each environment the physical make-up, activities undertaken, level of competence demanded, types of personal interactions required and actions of the student's peers and instructors are examined.

Benefits of functional assessment

The strongest reason for using a functional assessment is the development of socially valid interventions. The assessment:

- guides the decision making process. Interventions of this type tend to be multidimensional and require sufficient background information;
- identifies the relationship between the inappropriate behaviour and the conditions within the environment. Reinforcing consequences and motivational conditions can be discovered;
- leads to interventions that address the function of the behaviour; and
- focuses on nonaversive interventions.

Risks of omitting functional assessment

The functional assessment is a critical stage in the intervention process. The possible risks associated with omitting the functional assessment process include:

- a delay in effective intervention, and possible reliance on *quick fix* solutions;
- escalated and/or more entrenched inappropriate behaviour as a result of a possible ineffective approach;
- unnecessary exposure to aversive and restrictive procedures;
- damage to the student's well-being. (e.g., trial and error approaches are not ideal for self-injurious behaviour. It is crucial to understand the conditions that are precipitating the self-injury); and
- the overall success of inclusion may be greatly undermined (Ryndak and Alper, 1996).

Data Collection

A functional assessment involves collecting information about the student from a wide variety of sources. It is very important that the information collected is thorough. From this information a hypothesis is formed regarding the purpose of the behaviour and the intervention techniques that will be used.

Methods for collecting data include structured interviews, antecedent-behaviour-consequences recording, rating scales and scatter plot analysis.

1. Structured interviews

A structured interview is a set of questions aimed at defining the inappropriate behaviour in clear and precise terms. Particular emphasis is placed on discovering the frequency of the behaviour and the conditions under which the behaviour is likely to occur. The conditions can include *immediate setting events* (shortly before, during, or after the behaviour) and *distant setting events* that occurred in the past but continue to affect the situation (e.g., a sleepless night).

Consideration is also given to whether or not the behaviour is related to factors such as health conditions and/or medication, skill deficits (e.g., communication or social competence), general quality of life and sensory input.

It is important to get a broad perspective. For this reason all members of the core instructional team, selected peers and members of the extended team that would have specifically important information are interviewed.

Checklists may be used to structure the interview format. Other formats for stuctured interviews are outlined in Appendix G.

2. Antecedent-Behaviour-Consequence (A-B-C) Recording

A-B-C recording involves observing the student and identifying the specific environments that seem to motivate or trigger the inappropriate behaviour. *Antecedents* refers to what comes before the behaviour occurs, while *consequences* refers to what comes after the behaviour (usually in the form of a reaction from staff, peers or parents).

This is also referred to as *narrative recording*. While observing the student in various contexts, a description of the behaviour, the time it occurs and the events that immediately precede it and follow it are recorded. Attention is given to if or how the inappropriate behaviour is being reinforced (e.g., by the physical environment, the assigned task, the instructional strategies, peer interaction or the reaction to the behaviour by the educational team). Figure 12.4 provides an example of a functional assessment observation form.

Observation within the natural setting tends to yield highly valid assessment data. It represents authentic demonstrations of the presence and absence of the behaviour in question. Because of this validity it tends to be more accepted by school personnel, and may lead to interventions that result in more durable behavioural changes.

Figure 12.4. Functional Assessment Observation Form

Functional Assessment Observation Form

Date: ____________________ Student: ____________________

Observer: ____________________ School: ____________________

Setting Information:

Time	Antecedent	Behaviour	Consequences

From: The problem of behaviour: A teacher-based instrument to develop functional hypothesis of problem behaviour in general education classrooms, by T. J. Lewis, T. Scott and G. Sugai, 1994, *Diagnostique, 19,* p. 112. Copyright 1994 by Council for Exceptional Children. Reprinted with permission.

3. Rating Scales

Rating scales assist the team to analyze the behaviour according to impact or significance and to arrive at objective conclusions. Specific questions about the behaviour are asked and answers are given according to a numerical rating. The Motivational Assessment Scale (Durand & Crimmins, 1998) and the Problem Behaviour Questionaire (see Appendix H) are examples of rating scales. Both scales attempt to give information regarding the purpose of the behaviour.

4. Scatter Plot Analysis

Scatter plot analysis involves collecting frequency counts on the inappropriate behaviour throughout the day. Usually this is done in designated time periods of between 15 and 20 minutes. During the designated period the number of times the behaviour occurs is counted and charted (or plotted). By using this method the instructional team can determine if there is a specific pattern of high frequency time(s), whether the behaviour occurs consistently and whether it coincides with specific activities. Figure 12.5 is an example of a Scatter Plot Analysis.

Table 12.5. Scatter Plot Analysis Data Collection Form

Name: ______________________________ Behaviour: ______________________________

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-8:15					
8:15-8:30					
8:30-8:45					
8:45-9:00					
9:00-9:15					
9:15-9:30					
9:30-9:45					
9:45-10:00					
10:00-10:15					
10:15-10:30					
10:30-10:45					
10:45-11:00					
11:00-11:15					
11:15-11:30					
11:30-11:45					
11:45-12:00					
12:00-12:15					
12:15-12:30					
12:30-12:45					
12:45-1:00					
1:00-1:15					
1:15-1:30					
1:30-1:45					
1:45-2:00					
2:00-2:15					
2:15-2:30					

From The problem of behaviour: A teacher-based instrument to develop functional hypothesis of problem behaviour in general education classrooms, by T. J. Lewis, T. Scott and G. Sugai, 1994, *Diagnostique, 19,* p. 112. Copyright 1994 by Council for Exceptional Children. Reprinted with permission.

Developing a Hypothesis

Through developing a hypothesis the educational team attempts to explain the inappropriate behaviour in terms of its function for the student and the primary causes. The hypothesis also suggests the strategies that could be used to support the student. Developing a hypothesis involves sorting the accumulated information and making decisions based on the patterns that are discovered.

Considerations when forming a hypothesis:

- a clear definition of the inappropriate behaviour;
- the purpose of the behaviour from the student's perspective;
- the context(s) in which the behaviour occurs;
- the efficiency of the inappropriate behaviour; whether the student gets what she/he wants through the behaviour;
- the possible effects of the student's specific disability (e.g., fetal alcohol syndrome, autism);
- the possibility of medical reasons for the behaviour;
- the possibility of medication side effects;
- the possibility of psychiatric or emotional conditions;
- the possibility of significant life changes (e.g., loss of a significant person, moving residences, new instructional environment) or disruption in the student's life space (e.g., privacy, freedom, locus of control);
- the amount of interactional support the student has for times of crises (beyond the school support);
- the conditions that precipitate the behaviour; the events and situations that predict behavioural occurrences;
- the reactions from the staff, peers and family that have tended to reinforce the inappropriate behaviour;
- the reinforcements (e.g., events, actions, objects) the student perceives as positive;
- the primary method the student uses to communicate and the possibility of communication training;
- the student's ability to understand the concepts being taught and the ability to follow directions;
- whether or not the student knows a more appropriate form of the behaviour that will achieve the same purpose;
- the intervention techniques that have been used in the past;
- the skills that may need to be taught as replacement for the inappropriate behaviour (functional equivalent training); and
- the curriculum and instructional modifications that may be necessary to support the student.

When forming a hypothesis it is suggested that care be taken to not make false assumptions about the student's knowledge of how to act appropriately. A general rule-of-thumb is that we cannot assume that a student with an intellectual or multiple disability knows the proper way to behave in any particular context. A significant factor for intervention is to teach the skills necessary for appropriateness (Hingsberger, 1995). (Refer to Appendix I for a comprehensive *Functional Assessment Hypothesis Formulation Protocol.*)

In summary, examining the potential adverse effects of existing conditions within the program is recommended. It is of value to examine whether existing practices are *setting the occasion* or reinforcing the inappropriate behaviour. Both the antecedents and the consequences have to be appraised. If these conditions are not evaluated, it could result in a situation where the reinforcing aspects overpower the effects of any planned behaviour management intervention.

Additional guidelines and strategies are provided in:

Fad, K., Patton, J., & Polloway, E. (2000). *Behavioural intervention planning: Completing a functional behavioural assessment and developing a behavioural plan.* Austin TX: PRO-ED, Inc.

Strategies For Intervention: Positive Programming and Positive Behavioural Support

Major Considerations

The behaviour does not reside solely within the student

Inappropriate behaviour cannot be viewed as residing solely within the student. Rather, behaviour is examined in terms of context; looking closely at the conditions that occur before, during and after the behaviour occurs.

The key to programming lies in the purpose that the inappropriate behaviour serves. The idea is to proactively support the student within the contexts that cause difficulty and to teach the student a more appropriate behaviour that will attain the same needs. This can be accomplished only after the student's behaviour within a particular context is understood. This process for intervention is often referred to as *Positive Programming* or *Positive Behavioural Support.*

The Tenets of Positive Programming/Positive Behavioural Support

1. Positive Programming is a *gradual change process* that teaches the skills and competencies that are necessary for behaviour to change. It has a broad emphasis and focuses on lifestyle concerns (e.g., happiness, social support, friends, independence) and not just on excessive behaviour.
2. The procedures used are nonaversive in nature. Aversive methods are those that affect the student through physical or emotional pain or discomfort. Methods that are disrespectful or dehumanizing are also considered aversive. There are several problems that can result when aversive methods are used:
   - emotional responses such as whining, crying, trembling, and sensitivity to criticism;
   - aggression toward the punisher;
   - imitation of the punisher (e.g., hitting or spitting at peers);
   - escaping or avoiding situations where the punisher is present;
   - overkill; the punishment might damage the student's spirit and self esteem;
   - it is difficult to use discretely, especially in public places;
   - it does not generalize to other situations; and
   - if it does not work it may have to be increased to undesirable levels.
3. Intervention techniques are based on a functional assessment.
4. The student is taught appropriate behaviour and communication strategies for attaining the same purpose.
5. Positive reinforcement is utilized whenever possible.
6. The focus is on proactive procedures to prevent the behaviours rather than on reaction procedures to punish.
7. Long-term goals for skill building have priority over short-term behavioural outcomes.
8. Intervention may include a combination of methods.

A school-wide focus

Positive programming for individual students who demonstrate excessively inappropriate behaviour should stem from a school-wide behavioural support plan. A school-wide plan represents the connection between instruction, curriculum and appropriate behaviour. The premise is to teach and encourage all students to engage in behaviours that build communities of learning, respect, responsibility and cooperation. All school personnel are involved in the school-wide plan, as well as the students' parents. It is also effective to involve school division behavioural support consultants.

Preparation for behaviour management intervention; provide training if necessary

Concern must also be given to each educational team member's individual preparation for the task at hand. To successfully bring about positive behavioural change within a student, it is necessary for each team member to:

- be able to specifically define the student's behaviour that needs to change;
- understand the function that the inappropriate behaviour serves for the student;
- understand what will be used to reinforce appropriate behaviour;
- know how often the reinforcement will be provided;
- be aware of classroom management techniques that will support the student and promote appropriate behaviour; and
- be aware of how the specific reinforcement supports will eventually be faded.

Training in any of the above competencies may be required. It is important that each team member assess their own capacity and request assistance when and where necessary. Using support from personnel with in-depth specific knowledge (e.g., from a behavioural consultant) as part of the team process on an ongoing basis is a recommended practice. This serves to constantly enlighten the decision making process. It is critical, however, that *the consultant only assists in the decision making and is not in charge of the procedure.*

Teacher based support

The development of teacher-based behaviour support teams at each school is a functional and efficient means of assisting individual teachers who encounter inappropriate behaviour in their classrooms. It is also effective for promoting positive programming at the school-wide level. This behaviour support consists of other staff members meeting with the educational team to give suggestions for possible intervention. Parents are also involved and behavioural support consultants are included as needed.

Administrative supports

Positive programming is a long-term process that requires diligence and consistency over time. It cannot be effectively implemented over the long term without a commitment of support from the school and school division administration. It is important that administrations are knowledgeable of the positive programming process, the rationale for its use and the potential long term benefits. Support for programming in terms of providing personnel and opportunities for appropriate training is important. Staff collegiality and collaboration is also essential, as is the interrelationship of regular and special education techniques. Knowledge of the change process is also an advantage.

General Approaches for Intervention

Many potential behaviour problems can be prevented or minimized through proactive measures. The following are the general behaviour management approaches that are normally considered in all behaviour management plans established for students with intellectual or multiple disability.

General Approaches for Intervention

- Provide communication training.
- Teach the missing skill or alternative behaviour.
- Provide equivalent input.
- Alter the factors associated with the behaviours.
- Help the individual adapt to the situation.
- Teach self-management.
- Accommodate the individual.
- Support quality of life.
- Emphasize a positive teacher – student relationship.
- Emphasize collegial interactions.

- **Provide communication training.** A typical learning and performance characteristic of students with an intellectual or multiple disability is weak communicative competence. If the student is unable to speak or has weak communication skills and is using inappropriate behaviour to attain quality, assisting the student to communicate more effectively may improve the situation.

- **Teach the missing skills and/or alternate behaviour.** As previously stated, it cannot be assumed that a student with an intellectual or multiple disability knows the proper method for attaining the desired reinforcement. Often it is necessary to systematically teach these skills. Instruction in using appropriate social skills, for example, is frequently required.

- **Provide equivalent input.** Once the educational team has determined what is reinforcing the inappropriate behaviour, providing equivalent input is a matter of presenting the student with the desired reinforcement for demonstrating appropriate types of behaviour. For example, if a student is shouting to attain attention, then attention is given for using a quiet voice. This process is also referred to as differential reinforcement of alternative behaviour (DRA).

- **Alter the factors associated with the behaviour** (also known as stimulus-based intervention). When a definite antecedent or consequence has been identified the educational team changes or modifies the situation. A variety of considerations may be involved, depending on the circumstance. For example, thought could be given to:
    - ensuring a predictable, structured and organized environment;
    - changing the manner of interaction with the student;
    - expanding or reducing choices;
    - modifying curriculum;
    - rearranging the physical setting
    - changing the support personnel; and
    - interspersal training (also called *task variation* and/or *embedding*).

- **Help the individual adapt to the situation.** There are times when a particular context may be troublesome for a student but it is not possible to adapt or modify the context to suit the student's needs. In these situations it may be necessary to help the student develop coping skills and learn to tolerate certain situations. Examples may include:
    - relaxation training to assist the student who becomes anxious when having to deal with group interaction in the classroom;
    - scripts and role playing to assist the student who has difficulty interacting in public (e.g., ordering food in a restaurant);
    - organization skills and attribution training for the student who becomes anxious over completing assignments;
    - sensory integration training to assist the student who acts out due to sensitivity to noises, smells, or too many visuals on the walls; and
    - frequent exposure to specific situations to develop a feeling of comfort for the context.

- **Teach self-management**. Self-management involves using one or more of the following component skills:
    - self-monitoring; (e.g., discriminating appropriate vs. inappropriate behaviour);
    - self-reinforcement; and
    - self-evaluation.

  Self-management techniques have been reported to benefit students with regard to:
    - increasing time on task;
    - improving social skills;
    - decreasing classroom disruptions;
    - improving academic performance; and
    - controlling anger (McDougal, 1998).
- **Accommodate the individual**. At times it may be suitable to give the student what she/he is trying to attain through the inappropriate behaviour. Escalating the behaviour may then be avoided. Care has to be taken, however, that this accommodation is done in tandem with instruction on how to use appropriate behaviour to attain the same result.
- **Support quality of life**. Being interested in the student's development beyond what is stated in her/his PPP, and getting to know the student beyond the context of school can assist the student. The staff can facilitate peer understanding and acceptance of the student and ensure that the student has peer supports while in school. If the student lacks a social network outside of school and is suffering the effects of loneliness, steps can be taken to develop some supportive contacts. If significant life changes have taken place, if the student's life space has been drastically altered, or if the student is suffering through the side effects of a new medication, the educational team is in a position to offer the needed interactional support.

  Quality of life also has to do with the degree of control one has over one's life. Another approach to quality of life enhancement and behaviour management, is to support student decision making. Student choice should be acknowledged regarding preference for instructors, activities, friends, clothing styles and so on.

- **Emphasize a positive teacher-student relationship.** Developing an open communication and a relationship of positive trust with the student can prevent conduct problems. A positive relationship can also assist with de-escalating problems.

- **Emphasize collegial interactions to support teachers' use of effective procedures.**

Specific Strategies for Intervention

In addition to the general procedures that have been described previously, many specific strategies are selected depending on the individual nature of the student.

Specific Strategies for Intervention:

- physical environmental changes and adaptations;
- positive consequences intervention;
- negative consequences intervention;
- instructional considerations (Refer to Appendix J);
- enhancing self-esteem and self-confidence;
- fostering peer relationships through supported opportunities for interaction;
- developing a network of natural supports;
- working to earn student trust;
- mentoring;
- signal interference cueing;
- verbal statements;
- the Premack Principle;
- response interruption;
- extinction;
- time-out;
- overcorrection;
- interspersal training;
- time management training;
- anger management training;
- conflict resolution training;
- intervention for attention-seeking behaviour
- interventions for avoidance of failure behaviour;
- interventions for students with ADHD; and
- interventions for self-stimulatory, fearful and self-injurious behaviour.

Physical adaptations include classroom arrangement, schedules, visual supports and music

1. Physical environment changes and adaptations

- It is important to generate as much organization and structure within the **classroom arrangement** as possible. This may include:
    - defined seating arrangements, learning centres and areas for large and small group instruction. The seating arrangement should also permit the instructional team to monitor student behaviour;
    - paths for movement within the classroom that are clearly indicated and uncluttered; and
    - classroom materials organized based on individual learning needs. Materials are stored neatly in the work areas or on shelves and students are taught how to locate the materials and to replace them after use.
- **The classroom schedule** is fundamental to consistency and structure within the classroom. With a schedule daily routines are reinforced and activities are predictable. A schedule also assists coordination within the educational team.
- Students with intellectual or multiple disabilities often have difficulty with organization. **Visual supports** can assist with student organization by offering a form of permanent structure and predictability. Student independence is also enhanced.

  In addition to schedules, the following visual supports may be helpful:

    - written rules;
    - labels on learning centres and work stations;
    - directions for assembly;
    - directions for use;
    - sequences of instructions to follow;
    - lists of things to do;
    - reminders;
    - maps;
    - charts; and
    - memory supports, such as acronyms written on a chart.

Thought should also be given to a generally calming colour scheme for the walls, and to an organized manner of displaying student work. It is important that the classroom's visual presentation is stimulating but not overwhelming.

- **Music** can be a very calming factor for some students. To avoid the possibility of distracting others, head phones may have to be considered.

2. Positive consequences intervention

"One half of intelligence is motivation" (Feuerstein, 1979)

Positive Consequences include positive reinforcement, contingency contracts and token economy.

- **Establish motivation.** It is important that the student feel valued and accepted by peers, that she/he has a degree of choice in the tasks and that the tasks required of her/him are functional and meaningful.
- A reinforcement following a behaviour is considered **positive** if the behaviour increases in the future. All reinforcers are either primary or secondary. Primary reinforcers are universal and automatic reinforcers to which all people respond (e.g., food, drink and warmth). Through their association with primary reinforcers, secondary reinforcers develop reinforcing value. In school settings, commonly used secondary reinforcers are:
  - task completion;
  - grades;
  - attention;
  - approval;
  - favourite activities; and
  - tokens.

  In community-based instruction, commonly used secondary reinforcers are:
  - productivity;
  - positive employee evaluation;
  - positive peer recognition;
  - pay raise; and
  - time off.

  Ideally, positive reinforcers should be age appropriate, natural, context appropriate and given as immediately as possible. An effective teacher has two specific goals related to reinforcement. First, the instructor should seek to provide as many reinforcement options for students as possible. Second, the teacher should attempt to gradually replace primary reinforcers with naturally occurring age-appropriate secondary reinforcers (Huntington, 1998).

Reinforcers have to be assessed for each student individually. What is a powerful stimulant for one student may have little impact on another. Perhaps the best way to decide which reinforcer is best is to simply ask the particular student, or to observe what activities have been enjoyable. The best way to determine whether or not a reinforcer will be effective is to simply try it and watch the results.

- With a **contingency contract** the student and teacher mutually negotiate the amount of appropriate behaviour necessary from the student to earn a specific reward. The contract includes:
  - the task (what, when, and how often);
  - the reward (based on the criteria established); and
  - a record of progress.

  Contingency contracts present an opportunity for the student to self-manage. These contracts can be motivating for the student because it is possible to visually monitor the progress made, and see how close one is to attaining a reward.

- **A token economy** involves attaining a token for performing a specified behaviour. These tokens can then be exchanged for rewards. Typically a variety or menu of rewards are made available, each with a specific price or required number of tokens. After accumulating tokens, the student can then choose a reward that she/he can afford.

  Token economies require an initial training period. The training typically involves:
  - explaining how a token can be earned;
  - modelling how the tokens are delivered; and
  - modelling how the tokens are exchanged.

For the effective use of token economies:

- tokens should be given immediately after the desired behaviour occurs;
- procedures for token delivery should be clear, and followed consistently;
- the premise and emphasis of token economy is to increase appropriate behaviours, not to decrease inappropriate behaviour; and
- evaluation of the schedule, the reinforcers and the targeted behaviour should take place every two to three weeks (Huntington, 1998).

A plan for fading the token economy and maintaining appropriate behaviour through less intrusive methods should also be in place. The following procedures are suggested.

- Always pair the token reward with verbal praise, increasing the reinforcing value of social approval.
- The number of tokens to receive a reward should be gradually increased.
- The amount of time per day that the token economy is used should be gradually decreased.
- The items used as reward should reflect items that are in place in natural situations.
- Gradually increase the price of the more desired rewards.
- Physical evidence of the token should be gradually faded (e.g., begin with poker chips, then to slips of paper, then to tally marks, then to tallies that are kept by the teacher and announced at the end of the day) (Huntington, 1998).

3. Negative consequences intervention

- **Planned ignoring,** often called *extinction,* occurs when social reinforcers such as attention, physical contact or verbal interaction are briefly removed. Planned ignoring can be implemented by an individual instructor or by a group or team process. An example of a group process would be if a peer group discussion was taking place and an individual made a statement entirely unrelated to the discussion topic. In this situation the peers would ignore the comment and remove eye contact until the individual makes a statement that is in line with the discussion topic.
- **Response cost structures** involve the student losing tokens when inappropriate behaviour is demonstrated. Typically, a certain number of tokens are given to a student at the beginning of a period. A token is lost whenever inappropriate behaviour occurs.

  Response cost focuses on rule infraction rather than appropriately following rules and is perceived by students as a form of punishment. For this reason, it has been suggested that response cost should be considered only if other positive methods have been used and have not been effective. Furthermore, response cost should be paired with some form of positive reinforcement. For example, encouraging verbal reinforcement could be used throughout the process (Huntington, 1998).

4. **Instructional considerations.** Many potential difficulties can be eliminated through carefully planned instruction. Nine variables are taken into consideration when attempting to develop optimal instructional arrangements for students:
   - learning style;
   - teaching/response format;
   - cognitive skill level;
   - language/communication skills;
   - rate of learning;
   - favourite or preferred activities;
   - effective reinforcers;
   - ability to function with peers; and
   - classroom structure and climate (Wheeler, 1998).

   By considering these variables the teacher is able to develop a profile for the student and design instruction that will promote optimal behaviour and learning. From this profile, specific strategies can be developed. Appendix J includes detailed strategies to promote positive behaviour.

5. **Enhancing self-esteem and self-confidence**

   Before students will attempt to learn new skills or agree to act differently, they need to feel confident about themselves and their abilities. The educational team can enhance self-esteem through:
   - planning and facilitating successful social and academic experiences;
   - expecting success and productive work habits;
   - rewarding effort;
   - celebrating even the little successes;
   - concentrating on student strengths;
   - developing a sense of acceptance and belonging in the classroom;
   - developing an open and trusting relationship with the student;
   - recognizing appropriate behaviour;
   - offering realistic, sensitive and immediate positive reinforcement; and
   - acting as advocates for the students.

   A person's self-esteem is a compilation of the way people have responded, the feedback received and the decisions she/he has made throughout life. Self-esteem is a *life story*. The educational team can find out about a student's self-esteem by listening to the student tell about her/himself, and noting the terms used to self-describe.

The terms students use to describe themselves are called *self-characterizations.* Self-characterizations are made up of decisions students make about themselves and the justification or evidence for making the decisions. The following process can be used to discover student self-characterizations. Modifications may have to be made to simplify the process, depending on the student's cognitive level.

Figure 12.6. Self-Characterization Exercise.

Reflect

Fill in the boxes below with five characterizations that you or others may make about you. Then under each, list what you might see as evidence for that characterization.

From *Developing inclusive schools: A guide* (p.82), by B. Hoskins, 1996, Bloomington, IN: CASE Research Committee. Copyright 1994 by CASE Research Committee. Reprinted with permission.

Self-characterizations are typically subjective in nature. This subjective nature, from an instructor's standpoint, is positive because it allows the possibility of exploring and perhaps modifying a student's self-description.

An effective strategy for modifying a student's self-characterization is through accentuating the multiple intelligence perspective. Rather than concentrating on personal limitations, areas of strength are emphasized and reinforced. This may be in one or more areas; musical, body kinesthetic, spatial, logical-mathematical, linguistic and interpersonal (Hoskins, 1996).

6. Fostering peer relationships through supported opportunities for interaction

Students who have long term memberships in supportive peer groups typically demonstrate an enhanced self-image, more responsible behaviour and increased motivation towards academic achievement. Processes such as Circle of Friends, peer buddy systems, and cooperative learning groups have proven to be effective measures within a comprehensive behaviour management program (Grenot-Scheyer et al., 1996).

7. Developing a network of natural supports

Elements from the *Wraparound* process (VanDenBerg and Grealish, 1998) can be used to develop natural supports for students. Multiple aspects of the student's life are involved in this intervention. A range of concerned individuals who are committed to supporting the student are coordinated into a support network. The key individuals in the student's life are included; peers, teachers, ancillary agency personnel and family members. The overall premise is to develop layers of support for the student and to foster a sense of love and belonging (Nelson & Crabtree, 1998).

8. Working to earn student trust

Without trust the student may be reluctant to follow directions and advice from the instructional team. It is important to have empathy for the student and to try to see the world from the student's eyes. Behaviour management is viewed as a nonaversive mutual interaction in which both sides learn from each other.

9. Mentoring

Within the concepts of natural supports and established trust is the notion of mentoring. If there is a person whom the student likes, trusts and see as a natural role model, this person may wish to assume the position of an ongoing mentor. The mentor would meet with the student regularly to offer guidance, advice and influence.

10. Signal interference cuing

Signal interference cuing involves the instructor using some sort of indicator to inform the student that behaviour is becoming inappropriate. The student is first taught the cuing system and its meaning. It may then be practised in simulated contexts, then used in natural situations. Teaching the student to self-talk instructions when the signal is received may also be used. For example, if a student is constantly blurting out during class discussions, the teacher could raise her/his hand to signal the inappropriateness, if a student constantly speaks with a loud voice in class, the paraprofessional may tap a "quiet voice" symbol that has been taped onto the student's desk.

11. Verbal statements

Often the first responses to inappropriate behaviour is to make a verbal statement in a firm voice. Verbal statements can easily be overused and become ineffective. They may even act to reinforce inappropriate behaviour through the attention they provide.

Verbal statements should be used cautiously. They should be delivered as short directives and stated calmly. It is best to use positive statements that tell the student what to do. For example, "walk slowly" as opposed to "no running"; "sit down" as opposed to "no standing".

12. The Premack Principle (Grandmother's Rule or the Fair Play Rule)

The Premack Principle involves the pairing of a low preference activity (eating peas) with a high preference activity (eating ice cream); "If you eat your peas you can have some ice-cream." For this method to be effective the high preference activity must be highly reinforcing. The statements are always made in positive terms ("If you work quietly for five minutes, then you can go to the music corner."). Negative statements that may be perceived as threats should be avoided (e.g., "you cannot go to the music corner if you are noisy.").

13. Response interruption

Response interruption involves interrupting inappropriate behaviour so it does not occur. The student is redirected to another task.

14. Extinction

Extinction is a form of purposeful ignoring. The underlying premise is that by ignoring an inappropriate behaviour the reinforcement is withheld, thereby eliminating the behaviour.

It is important to note that extinction is not appropriate for self-injurious or self-reinforcing behaviours (e.g., over-eating, public masturbation).

15. Time out

Time out is the withdrawal of positive reinforcement following an inappropriate behaviour for a prespecified period of time. For time out to be effective there must be a high degree of positive reinforcement in the classroom activity. The student must want to participate in what is going on. Some students will misbehave because they want to escape the classroom activity. Students often prefer time out and for this reason its use has to be carefully considered.

Time out is used when other methods have been tried unsuccessfully, and the behaviour cannot be ignored. It is a specifically planned procedure that must be carried out according to plan. The student is removed from the activity to a specified area for a specified amount of time (both the place and the amount of time are pre-determined). The process is administered in a calm, matter-of-fact manner. Verbal interaction is kept brief and to the point. A timer is set for the predetermined period of time out. The student is monitored during the time out period. If the student leaves the time out area she/he is calmly returned.

When the time out period expires the student is returned to the activity. If, however, the student is still misbehaving at that time, the time out continues until the inappropriate behaviour stops. A brief *insurance period* is allotted (approximately 60 seconds) to make sure the behaviour has stopped before the student returns to the classroom activity.

Nonexclusionaary and exclusionary time out

Time out can be either nonexclusionary or exclusionary. Nonexclusionary time out involves the student being removed from participating in the activity but allowed to stay within the environment (e.g., the classroom). Exclusionary time out involves removal from the reinforcing environment.

16. Overcorrection

Overcorrection involves two procedures, restitution and positive practise. Restitution involves the student's restoring the environment that has been interrupted by the inappropriate behaviour to a state that is better than before. For example, if a student spits on the floor, the student is require to wipe up the spit, as well as the rest of the floor.

Positive practise involves the intense rehearsal of an appropriate behaviour. For example, if a student continually throws papers on the floor, she/he is required to regularly tidy her/his desk and the immediate area around it.

17. Interspersal training

Interspersal training is also referred to as *task variation, embedding,* and *pre-task requesting.* The idea of this procedure is to present a stimulus that has been an antecedent to problem behaviour within the context of stimuli known to result in appropriate behaviour. The underlying principle is that presenting a request that is likely to be obeyed just before presenting a request that has evoked challenging responses will increase compliance with the second request. For example if the stimulus "clean up your toys", which has precipitated tantrumming, is presented within the context of "Hey! Let's have a hug! That's great! Now, let's pick up the toys! I'll help for awhile!", cooperation may result. Positive reinforcement is then given for successfully picking up the toys.

18. Time management training

Time management training emphasizes increasing the student's time on task. The essence is to develop the student's ability to complete a specific amount of work within a certain amount of time. This process is based on teacher and student preparedness and readily accessible materials.

19. Anger management

Anger management techniques assist the student to recognize the signs of increasing anger within her/himself and to take steps to counteract it. Meta-cognitive techniques such as self-talk, are frequently used. Proactive measures, such as avoiding people and situations that are known to cause anger, are also emphasized.

The educational team may have to combine anger management programs with techniques to manage aggressive behaviour. Information regarding aggressive behaviour is also presented in this chapter.

20. Conflict resolution training

Training students in the steps of conflict resolution helps students understand they have choices other than disruptive or aggressive behaviour to satisfy their needs.

21. Interventions for attention seeking behaviour

Intervention includes:

- minimizing attention;
- distracting the student (e.g., asking a question);

- noticing the positive behavior (e.g., write names of well-behaved students on the board);
- moving the student; and
- time out.

22. Interventions for avoidance of failure behaviour

These include:

- encouraging participation;
- modifing instruction (e.g., using concrete materials, teaching one step at a time, errorless instruction);
- tutoring in the areas of difficulty and ensuring successful experiences;
- making mistakes okay by talking about mistakes and equating mistakes with effort;
- building confidence by focusing on improvement, noticing contributions, building on strengths, acknowledging the difficulty of a task and setting time limits on tasks;
- focusing on past success and finding ways to be positive;
- tring to give student choices for presenting the final product;
- making learning tangible; (e.g., checklists, rewards); and
- recognizing achievement.

23. Interventions for the student with attention-deficit/hyperactivity disorder (AD/HD)

The following table outlines interventions for a range of behaviours that may be displayed by students with AD/HD.

For Excessive Activity:

- generally channel activity into structured forms;
- give an activity reward (e.g., errand, clean board, organize teacher's desk, arrange chairs) for individual improvement;
- allow standing during seatwork, especially during the end of task;
- allow directed movement in classroom that is not disruptive (e.g., sharpen pencils, give two seats so child can change placement);
- encourage notetaking (even just cue words); and
- expend energy before the lesson (e.g., calisthetics).

For Inability to Wait:

- generally give the child substitute verbal or motor responses to make while waiting;
- instruct child on how to continue on easier parts of tasks (or do a substitute task) while waiting for teacher's help;

(continued)

- use a peer to assist if the teacher is not available;
- teach how to cross out incorrect answers on multiple choice tests;
- instruct and reinforce social skills (e.g., hello, good-bye, please, thank-you, how to ask for help, how to disagree); and
- teach and reinforce classroom routines.

For Failure to Sustain Attention to Routine Tasks and Activities:

- decrease the length of the task or increase novelty into later time periods:
- use fewer words in explaining tasks;
- give two tasks with a preferred activity to be completed after the less preferred task (the *dessert principle*);
- allow working in centres during spare time;
- teach the child to ask questions that are on topic; and
- use games to overlearn rote tasks and to maintain attention.

For Difficulty at the Beginning of Tasks:

- generally increase the structure and salience of the relevent parts of tasks and social settings.
  - *Teaching modifications:*
    - teacher proximity;
    - use visual teaching aids (e.g., steps to the assigned task);
    - model/demonstrate the finished task;
    - use clear/concrete verbal instructions;
    - ensure guided practise before independent work (e.g., 1:1, buddy system, small group);
    - teach new material in short sequential steps;
    - less detail and brief input; and
    - reduce background noise/distractions with new tasks (e.g., music).
  - *Prompt child for verbal directions:*
    - call child's name, touch child, use a private signal word, move closer to the child;
    - use prompt cards;
    - give wait time on directions;
    - verbal rehearsal;
    - check for understanding; and
    - guided practise.
  - *Structure assignments:*
    - state standards of acceptable work (use a specific concrete example);
    - write key points on a work card;

(continued)

  - color, circle or underline difficult letters in spelling, math process signs and directions or parts of directions
  - reduce clutter or competing stimuli on work sheets, etc.

For Failure to Complete Tasks:

- generally increase the choice of tasks or make sure tasks fit within the child's interests, learning abilities and preferred response style;
- give verbal compliments for improved work and behaviour - catch the child being good;
- give tallies to trade for an activity/reward;
- use activity rewards (e.g., errand, clean board, organize teacher's desk, arrange chairs) as individual reward for improvement;
- use work/behaviour contracts with motivational system (home note system); and
- ensure a proper cognitive - conceptual match by modifying assignments to the students level.

For Disorganization:

- generally increase the use of lists, object-placement routines, and spatial/color organizers:
- write assignments on the board, use colors to code different areas, make sure child has a copy;
- use "end of day" review of performance;
- practice planning different activities (e.g., what is needed, how to break tasks into parts); and
- practice organizational estimating.
  - the time it will take to complete specific tasks;
  - time it has taken for a past task;
  - resources and assistance required to complete task;
  - dates/times set to work the task; and
  - estimate the success with organization and task performance.

(Adapted from Seymour, 1996)

24. Interventions for self-stimulatory, fearful, and self injurious behaviour

Self-Stimulatory Behaviour is characterized as repetitious, seemingly purposeless behaviour (e.g., finger flicking, bobbing, spinning or shaking objects).

Intervention

- Try to identify the A-B-C pattern. This may be harder than with other behaviours because it is difficult to decide what is reinforcing.
- Look at times when the behaviour does not occur and compare with times the self-stimulatory behaviour occurs to find the possible antecedents and/or consequences.
- Provide increased attention when the student is not engaged in self-stimulation.
- Concentrate on teaching alternative behaviours that are incompatable with the self-stimulatory behaviour and offer greater rewards than the self-stimulatory behaviours.
- For some students the intervention may focus on teaching the students where it is appropriate to perform the behaviour and where it is not appropriate to perform the behaviour.

Fearful Behaviour indicates uneasiness and/or fear (e.g., withdrawal, escape, striking out, crying, shaking). It is usually caused by the student lacking the skills to perform or deal with an activity. The student may get pleasant consequences from the display of fearful behaviour. It may also result from a situation in which the student is afraid but has no way to control the situation.

Intervention

- Find ways for the student to participate in the fearful situation (e.g., choose a goal, break the activity into small steps, proceed gradually, reward appropriate behaviours).
- Make a list of the fearful situations, decide which situation would be most frightening and decide which aspect of the situation would be the least frightening. Repeatedly expose the student to the least fearful aspect. When the student is comfortable with that aspect move to the next least fearful aspect of the situation.

Self-Abusive Behaviour involves self-inflicted physical actions that are/can be harmful to the student (e.g., head banging, pinching skin, biting self).

Interventions

Prevention is the best method.

- Learn the warning signs. Students often exibit lead-up behaviours. Interrupting these may prevent the self-abusive behaviour.
- Rearrange the antecedents.
- Teach new skills.
- Intervene immediately.

(continued)

- Be firm.
- Keep records and analyze records for clues.
- Do not let the behaviour "pay off" for the student (e.g., student receives attention and/or physical contact only when self-abusive).
- Provide positive reinforcement for appropriate behaviours.

Managing Aggressive Behaviour

Working with and supporting students who have been unpredictable, confrontational, volatile and aggressive presents a unique challenge to the educational team. Not all aggressive behaviour is directly related to instructor behaviour, but instructor attitude and behaviour is a very important factor in affecting this type of conduct. Aggressive behaviour can be greatly reduced through specific classroom procedures.

Preventing aggressive behaviour involves the educational team understanding the dynamics of aggression in students and developing a therapeutic approach to aggression management and support (Abrams and Segal, 1998).

1. The dynamics of aggression

Aggression is learned in the manner that all other learning takes place, through modelling, positive reinforcement and negative reinforcement. The educational team has to be aware of the model(s) the student is emulating, or if the team members themselves are modelling aggression. Whether or not the student is receiving attention, getting her/his way from the behaviour or successfully avoiding unpleasant experiences is also a concern.

Student frustration is also an important component. Frustration is a usual antecedent to aggression. Students with an intellectual or multiple disability are at high risk for frustration due to difficulties with communication, social interaction and learning. The student may misinterpret a situation and feel threatened and defensive when no real threat exists. In social situations the student may lack impulse control, have a low failure tolerance, limited ability to problem solve under stress or have limited empathy for other's perspective.

Additional sources of frustration can come from:

- disorganized or inconsistent teaching;
- repeated academic and social failure;
- boredom;
- lack of positive reinforcement for appropriate behaviour;

- irrelevant curriculum;
- overuse of punishment; and
- feelings of powerlessness (Abrams and Segal, 1998).

Any of the above factors have the potential to evoke a crisis situation that could escalate into aggressive behaviour.

2. The therapeutic teacher

Learning and practising the qualities of the therapeutic teacher is effective in managing aggressive behaviour. Therapeutic teachers exhibit the following characteristics:

- good mental health;
- communicattion of respect, caring and confidence in self and others;
- self-control;
- trust and rapport with students;
- awareness of the stages of frustration;
- ability to deescalate tension in the classroom;
- ability to understand frustration and anxiety within students;
- do not resort to threats or confrontations during stress, but respect student's dignity;
- enthusiasm and positive expectations;
- awareness of individual student's needs, interests, values, and talents;
- effective stress-coping skills; and
- create a positive classroom climate (Abrams and Segal, 1998).

Central to the therapeutic process is a positive classroom climate. The world of a student with aggressive tendencies is often unstable, inconsistent and chaotic. They need order, structure and consistency. It is important that the instructors are aware of and practise the instructional considerations mentioned previously in this chapter.

Perhaps the most crucial characteristic of the therapeutic teacher is the ability to recognize frustration and anxiety in students and be able to respond appropriately in times of crises. The National Crises Prevention Institute (NPCI), (1987) have suggested that four distinct stages occur during a crises development.

Stage one: Anxiety

A noticeable increase in student activity and non-verbal communication occurs. Student stress becomes evident. Restlessness, fidgeting, pencil tapping, paper tearing, sighing, putting her/his head down, and pacing are characteristic.

The teacher responds with empathetic listening and nonjudgmental and friendly comments. Empathetic listening involves:

- acknowledging anxiety and giving attention to it;
- focussing on feelings, and labelling these feelings;
- clarifying the messages (communicative intent) the student is attempting to send; and
- silence and waiting as necessary.

The teacher also needs to respect the student by observing proper personal space (usually about one-half to one metre), present positive body language (calm, slow, and deliberate movements) and a non-threatening and supportive posture (step back and turned slightly to the side). The teacher's speech should suggest a calm tone, moderate volume and an unhurried cadence.

Stage two: Defensiveness

The student begins to lose rationality. She/he begins to become belligerent and challenging. Less listening takes place.

At this point the teacher clearly state the limits. What needs to be done, the choices the student has, and the possible consequences are stated in a simple, clear, reasonable and respectful manner.

Stage three: The Acting-Out Person

The student loses control, becomes physical and is at risk to self and others. At this point the student is unable to benefit from verbal instruction.

The teacher should protect the safety of other students and get help from other staff if possible. Restraint may also be necessary. If required, restraint is performed as a form of supportive control in a safe, noninjurious fashion.

Supportive restraint is a distinct technique and must be performed within the framework of nonaversive support. Team members need appropriate training in the *Nonviolent Crises Intervention* process. This training is available through the *ACCESS* services provided by Saskatchewan Education Special Education Unit.

Stage four: Tension Reduction

The student's energy subsides and rationality is regained. Tension is often released through crying and/or verbal venting. At this point the student is vulnerable and amendable to change.

The teacher presents a supportive attitude by attempting to reestablish communication and rapport, and the opportunity for positive growth.

When a student does not want to comply with verbal directions, he may choose to confront and defy the teacher. The potential for escalated verbal aggression is presented. The NPCI (1987) have also suggested stages for escalating verbal aggression, and appropriate teacher responses at each stage.

Stage one: Questioning

The student repeatedly asks the instructor for information, challenging authority. The objective is to put the instructor on the defensive, compelling her/him to justify the rules or directions.

The teacher attempts to remain calm, to give an appropriate amount of information and to redirect the student back to the initial request.

Stage two: Refusal

The student refuses to follow the instructor's directions.

The teacher sets the limits with clear and concise directions and consequences.

Stage three: Release

The student emits an aggressive verbal output.

The teacher allows the venting to proceed. The teacher also checks the environment for objects that could cause injury. The other students (the audience) may have to be removed.

Stage four: Intimidation

The student issues threats towards the instructor.

The teacher attempts to remain calm. The teacher becomes physically involved only if the student or the audience is in danger.

Stage five: Tension Reduction

The student's energy subsides.

The teacher supports the student with a calm, assuring voice, and talks about the opportunity for positive growth. The teacher and student also talk about the consequences that were discussed earlier. The teacher makes sure that there is a follow through with appropriate consequences.

Recommended Reading

Abrams, B. J., & Segal, A. (1998). How to prevent aggressive behavior. *Teaching Exceptional Children*, 30(4), 10-15.

Calculator, S. N. (1994). Designing and implementing communicative assessments in inclusive settings. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 113-182). San Diego, CA: Singular Publishing.

Carpenter, S. L., & McKee-Higgins, E. (1996). Behavior management in inclusive classrooms. *Remedial and Special Education, 17*(4), 195-203.

Chandler, L. K., Dahlquist, C. M., & Feltz, C. (1999). The effects of team-based functional assessment on the behavior of students in classroom settings. *Exceptional Children, 66* (1), 101-122.

Colvin, G., Ainge, D., & Nelson, R. (1997). How to defuse defiance, threats, challenges, confrontations... *Teaching Exceptional Children, 29* (6), 47-51.

Daniels, V. (1998). How to manage disruptive behavior in inclusive classrooms. *Teaching Exceptional Children, 30* (4), 26-31.

Dunlap, G., Foster-Johnson, L., Clarke, S. C., Kern, L., & Childs, K. E. (1995). Modifying activities to produce functional outcomes: Effects on the problem behavior of students with disabilities. *The Journal of the Association for Persons with Severe Handicaps, 20* (4), 248-258.

Green, J. C., & Menscher, S. L. (1996). Management of excessive behavior in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 227-242). Needham Heights, MA: Allyn and Bacon.

Grenot-Scheyer, M., Jubala, K. A., Bishop, K. D., & Coots, J. J. (1996). *The inclusive school: Professional's guide*. Westminister, CA: Teacher Created Materials.

Hall, A. M., Neuharth-Pritchett, S., & Belfiore, P. J. (1997). Reduction of aggressive behaviors with changes in activity: Linking descriptive and experimental analyses. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(4), 331-339.

Hoskins, B. (1996). *Developing inclusive schools: A guide*. Bloomington, IN: CASE Research Committee.

Huntington, D. (1998). Classroom management: Promising and effective practices for students with developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 255-262). Austin, TX: PRO-ED, Inc.

Jackson, T. L., & Altman, R. (1996). Self-management of aggression in an adult male with mental retardation and severe behavior disorders. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(1), 55-65.

Johnson, J. M., Baumgart, D., Helmstetter, E., & Curry, C. A. (1996). *Augmenting basic communication in natural contexts.* Baltimore: Paul H. Brookes Publishing Co.

Larson, P. J., & Maag, J. W. (1998). Applying functional assessment in general education classrooms: Issues and recommendations. *Remedial and Special Education, 19* (6), 338-349.

Nelson, J. R., & Crabtree, M. (1998). Teaching good behaviour in the whole school. *Teaching Exceptional Children, 30* (4), 4-9.

Sigafoos, J., Penned, D., & Verslus, J. (1996). Naturalistic assessment leading to effective treatment of self-injury in a young boy with multiple disabilities. *Education and treatment of children, 19*, 101-123.

Stainback. S., & Stainback, W. (1996). *Inclusion: A guide for educators.* Baltimore: Paul H. Brookes Publishing Co.

Taylor, G. R. (1998). *Curriculum strategies for teaching social skills to the disabled: Dealing with inappropriate behaviors.* Springfield, IL: Charles C. Thomas.

Weigle, K. L. (1997). Positive behavior support as a model for promoting educational inclusion. *The Journal of the Association for Persons with Severe Handicaps, 22*(1), 36-48.

Wheeler, J. J. (1998). Reducing challenging behaviours in learners with developmental disabilities through the modification of instructional practices. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 255-262). Austin, TX: PRO-ED, Inc.

18

The Student with Multiple Disability

The Chapter at a Glance

- Definition of Multiple Disability
- The Student with a Physical Disability
  - The Effects of Lack of Mobility on Interpersonal Relationships
  - Curricular and Instructional Considerations
  - Occupational and Physical Therapy Considerations
  - Community Resources
- The Student with Visual Disability
  - Vision Assessment
  - An Expanded Curriculum
  - Knowledge of Eye Condition
  - General Considerations for Intervention
- The Student Who is Deaf or Hard of Hearing
  - Assessment
  - Types of Hearing Loss
  - Central Auditory Processing Difficulty
  - Considerations for Interventions
- The Student with Health-Related Concerns
  - The Medical Management Plan
  - The Issue of Medication

Definition

Multiple disability refers to a combination of two or more disabilities. Typically, a multiple disability involves a student having an intellectual disability in addition to one or more of the following; physical disability, visual disability, deaf or hard of hearing, chronic physical illness, or a severe social or emotional disability.

The Student with a Physical Disability

The physical disabilities most commonly associated with school-age children are cerebral palsy, spina bifida and muscular dystrophy.

- **Cerebral Palsy**

  Cerebral palsy (CP) is a disorder of muscle coordination and body movement that results from damage to part of the brain. The medical definition of CP is *a nonprogressive but not unchanging disorder of movement and/or posture, due to an insult or anomaly of the developing brain.* The term *cerebral palsy* is used when the problem has occurred to the developing brain either before birth, around birth or early life as opposed to an acquired brain injury in later life.

  The effects of cerebral palsy vary widely from individual to individual. At its mildest, CP may result in a slight awkwardness of movement or hand control. At its most severe, CP may result in virtually no muscle control, profoundly affecting movement and speech. The individual may also have associated problems with vision, hearing, feeding, poor bladder and bowel control and learning difficulties.

- **Spina Bifida**

  Spina Bifida is a birth defect of the vertebral column and often the spinal cord. It is one of a group of birth defects called neural tube defects. It may also be associated with hydrocephalus, or water on the brain. Depending upon the level of the lesion, the child may have paralysis or weakness of the muscles of the legs and it usually affects the bowel and bladder control. Other associated problems such as learning problems and pressure sores may also be present.

- **Muscular Dystrophy**

  There are several different types of muscle diseases that are marked by progressive weakness of the skeletal muscles that control body movement. Muscular dystrophy is progressive; the symptoms gradually get worse as muscles deteriorate. Most of these conditions are caused by genetic defects and at present there is no known cure for them. Some common types of muscular dystrophy include Duchenne's, Spinal Muscular Atrophy, Myotonic Dystrophy and Limb Girdle Dystrophy.

Trained personnel are involved at all stages of programming and intervention.

Trained personnel are involved at all stages of programming and intervention

Many physical disabilities are highly specific and require unique input and guidance. This may involve a physical therapist, occupational therapist, medical doctor and nurse. For these reasons, trained personnel should be involved at all phases of programming and intervention. Failure to include specifically trained personnel in matters of physical disability can result in long-term negative effects for the student. Moreover, many of these effects can be irreversible.

The information presented in this section represents a framework and guide to the basic components for intervention.

The Effects of Lack of Mobility on Interpersonal Relationships: Attitudes and Concerns

Unbiased and equitable treatment

Teachers often lack confidence about their ability to provide a quality education for students with physical disabilities. This feeling can usually be overcome through proper teacher preparation, ongoing support, team collaboration, and the teacher gradually gaining an understanding and appreciation of disabilities. As the understanding and feeling of comfort is being established, however, it is important for the teacher to make every effort to treat the student with a physical disability in an unbiased and equitable manner.

The lack of movement caused by the physical disability can interfere with the student's potential for social interaction. The student's social competence and, ultimately, social status may be impacted. Social interaction opportunities may also be reduced if the nondisabled peers lack awareness and experience with physical disabilities and are hesitant to initiate interaction. Fortunately, these feelings can be modified through disability awareness instruction and by structuring learning and social activities that promote interaction.

Curricular and Instructional Considerations

Working with a student with a physical disability in an inclusive setting typically requires multiple considerations. A major goal is to ensure maximum accessibility to instructional and social opportunities for each student. Consideration should be given to preparation for instruction, schedules, classroom modifications, curricular modifications, assistive devices and computer technology.

Table 13.1. Considerations for Curriculum and Instruction

1. **Preparation for Instruction**
   - proper positioning which decreases strain and fatigue while maximizing use of limbs and mobility;
   - proper seating which is essential to proper positioning and prevents tissue breakdown, sores and ulcers;
   - adaptive devices that may be necessary to promote standing, kneeling and lying during activities (e.g., splints, braces and bolsters); and
   - ensuring comfort by changing position on a frequent basis.
2. **Scheduling**
   - daily schedules that are sensitive to the student's pattern of stamina, energy and fatigue should be considered;
   - for students using wheelchairs, scheduling should include spending some time out of the wheelchair; successive classes requiring wheelchair use should be avoided if possible;
   - frequent student absence may occur, and may require cooperation between home and school regarding the student's progress;
   - the student's social interaction at recess may require assistance through planed and structured processes; and
   - medication may have to be given at regular intervals.
3. **Classroom Modifications**
   - classroom arrangements to promote mobility and personal safety;
   - individual student seating that allows the student to see and interact in all classroom activities;
   - access to classroom materials;
   - access to school facilities (washrooms, sinks, towel dispensers, mirrors, lights, door knobs drinking fountains); and
   - work surfaces that enable the student to secure and stabilize work materials.
4. **Curricular Modifications**
   - the use of alternative and augmentative devices to include the student in classroom discussions;
   - photocopying, using carbon paper or audio taping for note-taking;

Table 13.1. continued

- positioning materials for proper viewing or allowing the student to view materials individually;
- additional time, altered expectations and/or use of alternate media (e.g., oral presentation, dictation to scribe, voice activated computer applications) to complete written assignments;
- additional time and/or oral responses; and
- special equipment and peer assistance as required (e.g., for science experiments, physical education).

5. **Assistive Devices and Computer Technology**

At all stages of the student's program, consideration is given to independence in communication, environmental control and mobility that can be fostered through using assistive devices and computer technology.

Computer technology is commonly used to assist with:

- augmentative communication and subsequent social interaction;
- written assignments;
- math assignments;
- drill and practice;
- leisure and subsequent social interaction;

Assistive devices can promote independence significantly. These may include:

- pencil grips;
- book stands;
- signature stamps;
- calculator with extra large keys;
- adaptive spoons;
- simple switches;
- carrying devices (e.g., bags attached to wheelchair);
- step stools;
- page turners;
- head phones; and
- nonslip placemats.

Occupational and Physical Therapy Considerations

1. Physical Therapy

Physical therapy (also called physiotherapy) prevents or lessens some of the physical problems that are associated with injury, disease, disability, birth defects or long periods of inactivity. It includes rehabilitation and, in the case of a child, habituation as well as prevention of injury and promotion of health and independence.

Pediatrics is a specialized area of physical therapy. It relates to the child with developmental or neuromotor problems. The pediatric physical therapist assesses the child and develops a program to assist in achieving the child's maximum independence in gross motor skills and mobility. Typically, physical therapy intervention might include hands-on treatment with the physical therapist and program suggestions for home or school. Some children require monitoring of their gross motor development or a program that is aimed at maintaining their level of function.

The physical therapist's approach to assessment and treatment involves facilitation of gross motor skills through handling and positioning techniques that follow the developmental sequence of typically developing children. It emphasizes the facilitation of normal quality of movement and postures while discouraging abnormal or atypical movement patterns and postures that would interfere with the development of normal balance reactions and gross motor skills. It may also include the assessment for and monitoring of specialized equipment to assist in meeting the therapeuic goals for the individual (Hurlburt, 1999).

There are long term and short term benefits associated with physical therapy. In the long term, physical therapy can:

- maximize a child's independence in mobility (e.g., walking with or without aides, wheelchair independence, transfers);
- prevent or minimize orthopedic deformity (e.g., joint, muscle, and bone);
- prevent pain from secondary orthopedic complications (arthritis) caused by abnormal alignment and posture;
- promote normal alignment, joint integrity and muscle length to keep pace with a child's growth; and
- maximize the child's upper extremity function through assessment, prescription and monitoring of appropriate seating or other specialized equipment.

Short term benefits include:

- promoting independence and activity;
- promoting normal alignment to prevent deformity as the child grows; and
- promoting physiological effects of movement and mobility (Hurlburt, 1999).

2. Occupational therapy

Occupational therapy involves the analysis and application of activites specifically related to occupational performance. The term *occupational performance* refers to those tasks in which individuals engage as part of their normal daily routine. In childhood, these tasks may include play, self-care, feeding, functional mobility, peer and family relationships, school work and community living skills. A child's performance in any of these areas is dependent on the interaction of functional skills and behaviours within the motor, sensory-motor, cognitive, psychological and social domains.

An occupational therapist assesses occupational performance based on typical developmental progressions. Areas that may be assessed include self-care, fine motor, sensory-motor, visual-motor, visual perceptual, functional cognitive and social interaction skills. If there is a disruption in expected development, functional independence is compromised.

Intervention may take the form of:

- foundation building - utilizing different treatment frameworks to facilitate skills development;
- functional remediation - teaching of specific skills; and
- environmental adaptation - providing a child with strategies or specific adaptation/equipment to compensate for disability.

There are two common models of occupational therapy service provision in the school system; direct service and monitoring services. Direct service refers to hands-on treatment by the occupational therapist. With monitoring service appropriate assessment and program planning is done by the occupational therapist and other individuals are taught to carry out intervention in the child's environment. This requires ongoing monitoring, reevaluation and adaptation of programming by the occupational therapist (Arndt, 1999).

The occupational therapist provides assessment, direct service and monitoring service for a number of physical difficulties. The common physical disabilities associated with school-age children are sensory integrative dysfunction, dyspraxia, fine motor disability, muscle tone difficulty, visual-motor disability and passive or overactive movements.

- Sensory integrative dysfunction refers to inefficient neurological processing of information received through one's senses. This results in problems of organizing information from one's body and environment and using this information to create and execute a purposeful action or interaction. This can interfere with learning, development and behavior.
- Dyspraxia refers to significant difficulty with motor planning (also called praxis); that is, planning, sequencing and carrying out unfamiliar actions in a skilled and coordinated manner.
- Fine motor disability refers to difficulty with movement of the small muscles in the fingers, toes, eyes and tongue.
- Muscle tone refers to the degree of tension normally present when the muscles are relaxed or in a resting state.
- Visual perception refers to the ability to perceive and interpret what has been seen.
- Visual-motor disability refers to difficulty with gross and fine motor movements based on the perception of visual information (Arndt, 1999).

The long term benefits associated with occupational therapy are:

- maximizing a child's independence and functional abilities in all areas of occupational performance; and
- preventing, promoting, maintaining or restoring functional abilities through the use of purposeful daily activity.

Short term benefits include:

- training in eye-hand coordination, fine motor development and visual-perceptual skills;
- addressing oral-motor difficulty/dysfunction;
- enhancing feeding, dressing and hygiene skills;
- assessing equipment and adaptations to promote independence in play, feeding and self-care tasks;
- assessment/training for appropriate writing equipment and keyboards;
- providing splints/devices to correct, prevent or maintain upper extremity mobility or range of movement;

- training amputees in the use of prosthetic devices;
- consultation service to families, schools and other agencies regarding environmental accessibility (e.g., ramps, lifts, bathroom design, desk design);
- enabling students with limited motor control to access communication systems or other technical devices;
- assessment and training in the use of a computer to enhance fine motor, visual-perceptual and cognitive development;
- assessing the impact of sensory processing abilities on a child's daily function and developing strategies to improve integrated functioning;
- development of individual home and school programs to facilitate carry over of therapy programming; and
- ongoing support and parental involvement.

3. Adaptations

There are three major areas of input from OT and PT: environmental, fine motor, and personal medical equipment.

Environmental

- access to school and classrooms (e.g., ramps, lifts, railings, door handles, push pads);
- access to bathrooms (e.g., stall design, support bars, commodes, shower design, etc.);
- physical management of dependent students (e.g., electric lift and track systems, change tables); and
- modifications to desks, tables and chairs for optimal function.

Fine Motor

- easels, trays and storage systems for desks;
- writing tools;
- scissors;
- desk top stabilization methods;
- clothing fasteners;
- cutlery to promote independent eating;
- computers (including mounting systems) and software; and
- environmental controls (switches).

Personal Medical Equipment

- body support systems (splints, braces); and
- mobility (wheelchairs, scooters, strollers).

4. Common procedures associated with physical therapy and occupational therapy

Common procedures include assisted eating, handling and positioning, lifestyle development, promoting independence and emergency procedures

Occupational and physical therapy are commonly involved with supporting the student through assisted eating, physical assistance, positioning and transfer.

Assisted eating

An eating program may be necessary for students with neurological disabilities. Eating problems may occur due to: lack of trunk, head or mouth control; persistent reflex activity; poor tongue, lip or jaw control; abnormal oral-facial muscle tone and oral hypersensitivity.

There are several guidelines that are important in all assisted eating programs.

- Good basic positioning enhances eating ability, whether this is in a regular chair, wheelchair or an adaptive seating device.
- Maintain the child's head and body in midline alignment.
- Head position should be as upright as possible with a slight chin tuck to allow for a good swallowing position.
- Knees and hips should be flexed to 90 degrees in a good sitting position to break up possible spasticity patterns.
- Eating surface (e.g., table or wheelchair tray) should be at a height that encourages a comfortable arms-forward sitting position.
- The person feeding the child should be situated slightly below the child's level so the child is encouraged to bend her/his neck and move forward slightly.
- Avoid presenting food at a level that will cause the child to tip his/her head back.

There are many adaptive devices that encourage full or partial independence while eating. Possible adaptations and specific methods for assisted eating should be discussed with the OT.

Handling and positioning

In addition to proactive care of the body, handling and positioning methods require specific techniques that are learned under the direction of an OT and PT. These include:

- proactive care of the body, particularly the back and legs;
- knowledge of the established weight transfer regulations; and
- techniques for handling and positioning (see Table 13.2).

Table 13.2. Tips for Lifting and Transfering

Maintaining Back Comfort for Lifts and Transfers: Principles of Body Mechanics

1. Stretch your muscles prior to lifting.
2. Size up your load. There is minimal risk if the student's weight is less than half the weight of the lifters.
3. Use a wide base of support when moving or lifting persons or objects. A wide staggered stance improves balance and allows better control of the object or person being lifted.
4. Lift or hold the bulk of weight as close to your centre of gravity as possible. Holding objects away from the body increases the length of the lever arm and increases the perceived weight of the object and stress on the body.
5. Use your longest and strongest muscles. The large muscles of the legs are built to work efficiently under high amounts of stress developed while lifting.
6. When possible, slide, push, pull or roll rather than lift. When moving objects, find alternatives to lifting whenever possible to decrease the stress on the back.
7. Face the direction of movement and pivot, avoid twisting your body while lifting. Twisting while lifting a load places high rotational stress on the disks in the back and can lead to premature breakdown.
8. Lift or move with smooth easy motions. A controlled lift allows the muscles of the trunk and legs to protect back.

Refer to Appendix K for a description of proper lifting, positioning and transfer techniques. It is recommended that these descriptions be used as reference *after the techniques have been discussed with an OT and PT*.

Authentic application and life-style development

The OT and PT can also be very useful with assisting the educational team to apply the recommended methods, exercises and adaptations within the student's natural environments. In this manner, recreational therapy and opportunities for long-term use of the developed muscles can be applied to an *exercise life style*. Swimming, wheelchair sports, walking and horseback riding are examples.

Independence versus offering physical assistance

Maximized student independence is always a desired outcome. When providing physical assistance, care should be taken to not do anything for the student that she/he is able to do independently. In addition, physical assistance should be provided with the intention of gradually fading the help if and whenever possible.

The student's privacy and dignity should always be respected. It is recommended that physical assistance should not be provided without the student's foreknowledge and permission. It is respectful to always ask permission and to tell the student what support is going to be given.

Emergency Procedures

It is important that the educational team have a plan for assisting the student during emergencies. For example, a plan for evacuation during a fire is essential. Negotiating stairways may be involved. A representative from the fire department is helpful in this regard.

Community Resources

Community resources for supporting students with physical disabilities are:

Alvin Buckwold Child Development Program
Kinsmen Children Centre
1319 Colony St.,
Saskatoon, SK,
Phone: 306-655-1070.

Wascana Rehabilitation Centre
2180 23rd Ave.
Regina, SK,
Phone: 306-766-5100

The Student with a Visual Disability

A qualified vision teacher/consultant should be an integral member of the educational team

A visual disability can be caused by a variety of factors. Depending on the cause and resulting eye condition, the type and degree of vision loss can greatly vary. Providing effective intervention in terms of assessment, adaptations and instruction that complements the specific type of vision loss, requires a significant knowledge base. A qualified vision teacher/consultant should be an integral member of the educational team and offer guidance to the vision programming at all stages.

If a qualified vision teacher/consultant is not available within a particular school division, this type of support is available through the Saskatchewan Education ACCESS program.

The following information represents a framework of the basic concepts and knowledge necessary for understanding vision loss and the methods used for intervention.

In addition to the information presented, the following resources are helpful:

Levack, N. (1991). *Low vision: a resource guide with adaptations for students with visual impairments.* Austin, TX: The Texas School for the Blind and Visually Impaired.

Smith, M. and Levack, N. (1996). *Teaching students with visual and multiple impairments: A resource guide,* Austin, TX: The Texas School for the Blind and Visually Impaired.

The Canadian National Institute for the Blind (CNIB)

CNIB (Saskatoon)	306-374-4545
CNIB (Regina)	306-525-2571

Vision Assessment

Information regarding a student's vision comes from four sources: an optometrist, an ophthalmologist (medical diagnosis and medical history), a low vision clinic evaluation and a functional vision assessment. Although all sources of information are important, the most useful information with regard to classroom instruction will come from the low vision clinic and the functional vision assessment.

1. The low vision clinic evaluation

The low vision clinic evaluation is carried out by an optometrist. It provides information regarding visual acuity (both distance and near), binocularity (whether or not the eyes are working together), refraction (the strength of lens needed for glasses), visual field (the amount the student can see on both sides while looking straight ahead), contrast sensitivity (what backgrounds promote better and/or easier vision) and glare testing. From the low vision assessment low vision aids such as telescopes, magnifiers, tints, nonoptical aids (e.g., large print, bold lined paper) and high technology (e.g., close circuit television, computers, software) may be recommended.

2. The functional vision assessment

Functional vision assessment is carried out by a qualified vision teacher. A functional vision assessment determines how the student uses vision to perform routine tasks. The quality and quantity of the student's functional vision is defined, including whether or not vision is interfering with the learning process.

The following components are included in a functional visual assessment:

- pupil responses (whether or not the pupil opens or closes according to light);
- blink reflex;
- reactions to light (e.g., artificial light sources, sunlight and night vision);
- fixation (e.g., eye preference, static or dynamic);
- eye movement (e.g., shift gaze, tracking, scanning and muscle balance);
- visual motor (e.g., reach, grasp, transport, place, release and imitation of movements);
- depth perception (e.g., overreaching, underreaching and figure-ground discrimination);
- discrimination (e.g., reaction to the disappearance of objects; reaction to differences in objects; recognition of familiar objects, people, and pictures and color discrimination);
- observations (e.g., gestures, details and demonstrations);
- spatial orientation (e.g., position objects for viewing, sequence objects and pictures and organize materials);
- acuity;
- visual field preference/limitations;
- working distance;
- visual behaviours (e.g., eccentric viewing, stereotypical behaviours and fluctuating visual abilities); and
- travel (e.g., indoor, outdoor, familiar and unfamiliar).

An Expanded Curriculum

The presence of a visual disability alters the breadth of the personal program plan that is developed for the student. In addition to the cognitive, academic, communication, social skills, job performance, leisure and personal management domains, orientation and mobility and the development of visual efficiency are planned.

Students with visual a disability may experience the same opportunities and interaction as their sighted peers, but the information they derive may be altered or limited. Most incidental learning opportunities are dependant on vision, so are not available to the student with visual impairment. Even direct learning opportunities have to be structured differently. In addition to the two extra developmental domains included in the PPP, the specific effect of blindness or low vision in the following areas has to be considered:

- social interaction skills;
- the high degree of assistive technology (both high and low-tech) that may be used;
- independent living;
- recreation and leisure; and
- career education and work experience.

The following is an overview of the unique curricular needs for students who have visual disability.

Table 13.3. Curricular Needs for Students with a Visual Disability

Examples of Conceptual SkillsThat May Require Systematic Instruction for Students with Visual and Multiple Impairments

Space, spatial relationships, movements in space

Near and far space
External spatial referents
Arranging objects in space (cognitive mapping)
Usual structure of environment (specific rooms,houses, neighbourhoods and general layouts)
Specific routes from one position to another
General concepts of a route
Exploration of familiar space
Exploration of unfamiliar space
Self-initiated, purposeful movement to explore a familiar route
Self-initiated, purposeful movement to explore an unfamiliar route

Object Attributes, Functions and Relationships

Purposeful object exploration
Identification of object attributes
Functional use of objects
Functional parts of objects (lids, dresser drawers)
Relating objects by function (key and lock)
Existence of objects when out of sense range (levels of object permanence)
Cause and effect relationships

Concepts Relating to Quality

Volume	Empty/full
Weight	Heavy/light
Length	Long/short
Number	Many/few

Time Concepts

Start/stop
Day, morning, night
Sequence of activities in a day

Body Concepts

Body planes, parts, movements
Left/right discrimination
Body/object relationship
Body position in space
Environmental concepts

Table 13.3. continued

Environmental Concepts

(A student's understanding of these concepts will vary with the degree of visual impairment, cognitive level, and depth of exposure. A few examples are listed.)

Cabinet
Tree
Flower
Ceiling
Floor
Swing
Vacuum cleaner
Refrigerator
Automobile
Bus

Social Concepts and Relationships

Understanding that other people exist
Turn-taking
Understanding actions of other people
Sensitivity to needs of other people
Initiating social interactions
Self-advocacy (e.g., making choices, making decisions, taking command over events in daily life)

Adapted from: Setting curricular prioriites for students with visual impairments, by A.N. Lueck, 1999, Review 31(2), pp.64-66.

Knowledge of the Eye Condition

The educational team can benefit from knowledge of the student's specific eye condition. Although at times complicated and subject to confusing terminology, knowing the eye condition and its particular effects on vision aids in understanding the type of intervention required. The Levak (1991) resource listed above, provides a good beginning for this knowledge. Explanations of the more common eye conditions and a glossary of frequently used terms are provided.

A frequently encountered condition among students with multiple impairment is *cortical visual impairment (CVI)*. CVI is a complex and often confusing condition. Despite its label, CVI is not actually an eye condition; rather, it is a brain condition. Moreover, CVI can vary markedly from situation to situation. Intervention for CVI requires detailed observation and knowledge of the student's behaviour. A collaborative team approach with the assistance of a trained vision teacher/consultant is recommended.

General Considerations for Intervention

Vision loss comprises far more than the physical inability to see. Cognitive, psychological and emotional factors are included. The efficient use of approximately 80% of the brain is required to process and understand a visual message. Disruptions in the visual process can influence the motor, cognitive and communication skills. Vision is also an emotional process. People tend to use their vision most efficiently when they are feeling confident, when they are interested in a specific topic or if they want to communicate with others. Visual efficiency is reduced when the senses are overwhelmed, the student has to plan or ponder something difficult, the student is bored, tired, stressed or is feeling submissive and underconfident (Morse, 1999).

In addition to attending to the cognitive, psychological and emotional factors, the following are considerations for intervention (Orelove and Sobsey, 1996):

- restoration of vision to the optimum possible, usually through corrective lenses or magnifiers;
- maximizing the use of residual vision through visual efficiency training;
- using adaptive equipment to help compensate for the visual problems;
- enhancing the other senses to help compensate for vision loss; and
- modifying the tasks to reduce visual requirements. Adaptations can be made regarding size and distance, colour and contrast, illumination, glare control, spacing, visual cues, tactile graphics (embossed materials) and organizational aids.

The educational team should also keep in mind that students with a visual disability are typically passive with regard to initiating social interaction with peers. Intervention to enhance social competence is usually required, particularly with physical proximity and the mannerisms that are usually monitored through visual feedback.

In addition, when instructing a student with multiple disability including vision loss it is necessary to use a combination of auditory, tactile and physical prompts. Care has to be taken, however, to not overwhelm the student with sensory input. When introducing or reinforcing a skill (e.g., caning technique) physical prompting followed by clear and terse auditory instruction is often the most effective.

The Student Who is Deaf or Hard of Hearing

Qualified personnel are part of the educatioanl team

Intervention techniques for the student who is deaf or hard of hearing are often very precise. Unique knowledge is necessary for developing language, communication and auditory skills, and for using sign language or an oral facilitator. Specifically trained teacher consultants are available through the Saskatchewan Education ACCESS program. The speech-language pathologist is also in a position to offer valuable advice. Audiologist reports and recommendations are beneficial with regard to interpreting the type and degree of hearing loss and determining specific amplification devices. Should sign language be used, an appropriately trained facilitator is needed.

The following information represents a framework of the basic concepts and knowledge necessary for understanding hearing loss and the methods used for intervention. Additional sources of information and support are:

The Saskatchewan Pediatric Auditory Rehabilitation Centre
(SPARC).
Royal University Hosptial
Saskatoon, SK
(306) 655-1320.

SPARC offers services for children birth to three years of age.

The Hearing Aid Program
Saskatoon (306) 655-4170
Regina (306) 766- 7555
North Battleford (306) 446-6415
Prince Albert (306)765-6530

The Hearing Aid Program offers service for school-aged children and adults.

The Saskatchewan Cochlear Implant Program (SCIP).
Royal University Hospital
Saskatoon, SK
(306) 655-1320

The program provides postoperative follow-up, rehabilitation and programming for individuals with cochlear implants. Professional development workshops are also offered to school staffs.

Assessment

Assessment of hearing loss is carried out by a trained audiologist. The student's hearing is assessed under two basic conditions; without using hearing aids (unaided) and while using hearing aids (aided). The degree of hearing efficiency under both conditions is documented and presented in a chart format called an audiogram.

It is important that a student's hearing be reassessed on a annual basis. This annual process monitors any changes in the student's hearing and ensures the appropriateness and efficiency of any equipment being used.

Types of Hearing Loss

There are three basic types of hearing loss: conductive, sensorineural and mixed.

1. Conductive hearing loss

Conductive losses result from interference in the pathway to the inner ear. Wax build-up, middle ear infections, a hole in the ear drum or other injury are common causes. In most cases, conductive hearing losses can be corrected by medical or surgical means.

2. Sensorineural loss

Sensorineural losses involve nerve damage and occur in the inner ear. Rubella, meningitis, viral injury, genetics and degeneration of the inner ear and auditory nerve are common causes.

3. Mixed loss

A mixed hearing loss involves elements from both conductive and sensorineural conditions.

Central Auditory Processing Difficulty

Central auditory processing difficulty is not really a hearing loss; rather, it is an inability to interpret or perceive sound as a result of central organic dysfunction. It is often difficult to make this diagnosis with certainty, particularly for students with multiple disability . The diagnosis is made by a specifically trained audiologist.

Considerations for Intervention

Students who are deaf or hard of hearing can benefit from adaptations to the instructional procedures and to the physical classroom environment. It is necessary to ensure that the student is effectively receiving the information presented by the teacher. In addition, specific attention has to be given to developing the student's communication skills.

The following considerations for basic adaptations are suggested for the student who is hard of hearing:

- Attend to the manner in which you interact with the student; for example, attain eye contact, consciously enunciate words, adjust vocabulary (avoid idioms and sarcasm) and sentence length, speak at a moderate rate (but not unusually slowly), at close range and keep mouth free of obstruction.
- Prompt to ensure the student is attending.
- Explain assignments thoroughly and check to see if the directions are understood. Insist the student does not move until you have completed the direction and are sure she/he understands.
- Strive for a strong clear projection when giving directions.
- Do not give directions during times of transition between classroom activities as there tends to be too much classroom noise.
- Provide preferential seating in the classroom. Being close to the teacher increases amplification, decreases background noises and maximizes the student's opportunity to lip read.
- Control residual noise in the classroom. Provide carpeting on the floors and sound absorbers on the wall and ceiling if necessary.
- Provide amplification through hearing aids, personal FM systems or surround field systems.
- Be aware that class discussions, though important, are often confusing for the student with a hearing loss.
- Teach the student to listen for auditory cues (even if they are not heard clearly) within speech intonation, inflection, pitch and tone. For example, the intonation heard when a question is being asked as opposed to a direction statement or an exclamation of joy.
- Encourage the student to ask for clarification.
- Use time tables and schedules to establish predictable routines and procedures within the classroom.
- Use multi-modality presentations with particular emphasis on visual supports (e.g., charts, outlines, slides, film).
- Ensure proper classroom lighting.
- Direct the student to certain environmental sounds (e.g., a door closing, books being opened, children running, the teacher beginning to speak) and the meaning that is implied.
- If necessary, use a buddy system, peer coach or note-taker for assignments.
- If a particular student uses oral facilitation or sign language to communicate, teach some finger spelling and basic signs to everyone in the class.
- Be aware of auditory exhaustion. Listening and watching for information is a very tiring process for the student with a hearing loss.

The Student with Health-Related Concerns

The need for health-related services in the classroom is increasing. In the past, many individuals with medical conditions would have been confined to the hospital. With continual advancements in medical science children with a serious illness can lead normal lives and attend school. There has also been a general increase in the incidence of conditions such as asthma and serious allergies. Students with these conditions also lead relatively typical lives and attend school.

Care has to be taken and plans for possible emergencies have to be made. Because of the specific knowledge required for many health-related concerns, it is essential that advice from qualified medical personnel be attained and followed.

The Medical Management Plan

Whenever a significant medical condition is noted, a medical management plan should be put into place. The components of the plan and the amount of detail is dependent on the severity of the condition.

The following factors are typically considered in developing the medical management plan:

- awareness of school division policies with regard to medication, personal care, ongoing medical support and emergency medical support;
- involving the family in the decision making;
- access to adequate training and continued consultation and input from trained personnel;
- an orientation for the entire staff if necessary;
- a written medical management plan includes a medical doctor's specific directions for management and the possible risks involved. The plan gives detailed directions for school personnel with regard to whom should carry out the plan and how;
- family support for the medical management plan and for the school's role in it;
- a comprehensive medical emergency action plan; and
- planned transition to next year's environment (Koroluk, 1999).

If the student is transferring from a hospital situation a detailed transition plan that facilitates a well prepared entry to the school situation is needed. In addition, skilled case coordination ensures:

- clear communication and distribution of information;
- interagency planning and service coordination;
- frequent meeting of the core and extended team;
- commitment to family assistance;
- smooth facilitation of school entry; and
- promotion of positive attitudes.

The Issue of Medication

Some students may require medication during school hours. Although the school staff might be involved in some manner, the final choice for a student to use medication remains with the family. Typically the family desires an informed decision and consults with the medical profession.

Although not responsible for decisions regarding medication, it is strongly recommended that the school staff be aware of the policies and procedures their school division has developed regarding medication. These policies and procedures should be followed explicitly.

The educational team may also wish to develop an awareness and knowledge base about the particular medication their student is taking. Quinn (1999) has suggested the following key questions that the educational team might ask:

- What are the intended primary physiological effects?
- What are the possible side effects?
- What is the common name for the medication? For example, the medication is commonly called Ritalin, Prozac, Resperidone, etc.
- What is the major purpose of the medication? For example, the medication could be for increased attention, hyperactivity, aggression, mood disorder or seizure control.
- Has there been or will there be a change in the prescribed dosage?
- Will monitoring be necessary?

Recommended Reading

Crocker, A. D., & Orr, R. R. (1996). Social behaviors of children with visual impairments enrolled in preschool programs, *Exceptional Children, 62*(5), 451-462.

Downing, J. E. (1996). *Including students with severe and multiple disabilities in typical classroom: Practical strategies for teachers*. Baltimore: Paul H. Brookes Publishing Co.

Hammeken, P. A. (1995). *450 strategies for success: A practical guide for all educators who teach students with disabilities*. Minnetonka, MN: Peytral Publications.

Lueck, A. H. (1999). Setting curricular priorities for students with visual impairments. *RE:view, 31*(2), 54-66.

Morse, M. T. (1999). Cortical visual impairment: Some words of caution. *RE:view, 31*(1), 21-26.

Orelove, F. P., & Sobsey, D. (1996). *Educating children with multiple disabilities: A transdisciplinary approach* (3rd ed.). Baltimore: Paul H. Brookes Publishing Co.

Smith, N., & Levack, N. (1996). *Teaching students with visual and multiple impairments: A resource guide*. Austin, TX: Texas School for the Blind and Visually Impaired.

Wisniewski, L., & Anderson, R. (1996). Managing the needs of students with physical and health challenges in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 243-268). Needham Heights, MA: Allyn and Bacon.

14

Transition

The Chapter at a Glance

- The Importance of Transition
- The Components of an Effective Transition Plan
  - Family Involvement
  - A Focus on the Future
  - Strong Student and Family-Centred Team
  - Frequent Review and Revision
- Emerging Initiatives in Transition
- The Transition Meeting
- Community Resources

The Importance of Transition

The transition planning process facilitates the movement from the known to the unknown. It is an extremely important practice, crucial to the success of all personal programs. Transition requires a well coordinated communication between the student's family and the support personnel.

Major transitions occur as the student moves from:

- a home-based program to a preschool program;
- a preschool program to an elementary school program;
- an elementary school program to a high school program; and
- a high school program to a post-secondary or vocational situation.

Moving to another school or community would constitute another major type of transition. A minor but still very important transition occurs when a student moves to the next grade level while remaining in the same school.

All transitions, whether major or minor, impact on the personal feelings of the student and family and on the present and future educational team members. Family relationships can be particularly vulnerable to the strain. Members of the present instructional team often feel a sense of significant loss when their student leaves.

An effective transition is central to a productive, relaxed and happy beginning in the new environment. Significant effort should be given to the process.

Components of an Effective Transition Plan

An effective transition is characterized by four major components: family involvement, a future-based orientation, a strong student-centred transition team and frequent review and revision.

Family involvement

The key to continuity

Schools that work closely with families tend to develop higher student achievement, more positive attitudes and higher morale among staff and students. Families are the key to continuity. It is the family that knows the student better than anyone else. The family has been with the student the longest and will continue to be involved long after most school staff are gone. It is important, therefore, that families are considered important members of the decision making team and that their desires, needs and expectations are taken seriously. Active participation in programming and frequent communication between home and school (either written or verbal) is critical.

Families also require emotional support from the school during times of transition. Transition presents many questions and unknowns and tends to be a stressful time.

Focus on the future

Transition planning should be future based. The desired outcomes for the student as an adult have to be considered very early in the student's life. The emerging initiatives in transition place an emphasis on skills and abilities that require long-term mediation. Bearing this in mind, kindergarten is not too early to begin transition planning.

With regard to the futuristic qualities of transition, the following guidelines should be taken into consideration.

- Transition is a part of the student's PPP. The stated goals and objectives should be functional, reflect the demands of life, emphasize the student's strengths and be based on outcomes.
- The educational team should be aware of the resources available at school, home and in the community, and draw from as wide a variety of resources as possible.
- With each new PPP, emphasis is placed on the life skills necessary for the next environment.
- The educational team is aware of student's preferences, interests and aptitudes. In the high school years a vocational assessment may be required.
- The educational team is aware of the family's interests and value system.
- Community-based instruction and work education (a variety of job placements, career exploration and career counselling) are an integral part of the intervention.
- Partnerships with the business community are fostered.
- Student self-advocacy and self-determination should be encouraged, beginning at an early age.

A Strong Student and Family-Centred Team

If transition plans are developed only by school personnel there is a risk that the goals will not reflect real life demands. Input from a wide perspective is important. Opinions from community representatives are particularly meaningful (Grigal et al., 1997). Team members may include:

- extended family;
- friends;
- peers;
- regular classroom teacher;
- special education teacher;
- paraprofessional(s);
- student/family advocate;
- a school division representative to assist with assessment, develop long-term resource support and liaise with outside agencies;
- community support personnel; individuals that can provide links to employment, recreational services, living situations and training opportunities; and
- a Social Services representative, typically from the Community Living Division.

One of the team members acts as the transition coordinator and shoulders the responsibility for facilitating the transition process. While the student is in the school system, the special education teacher and/or the classroom teacher typically assumes the coordinator role.

As the student nears the end of his school career and gets closer to either attending post-secondary education or entering the work force, it is important to consider two recommendations. The first is that when the student is within two or three years of leaving, an impartial person should be brought in to chair the meetings. An impartial person may be more apt to ask the demanding questions of everyone involved and speak bluntly about everyone's responsibilities. The second recommendation is that a decision be made regarding who will be coordinating transitions after the student has left the school system.

It is also important to consider the team size. Larger teams can provide more information, but are more difficult to manage. It may be necessary to distinguish between those team members required to attend all meetings, and those that are invited for a specific purpose.

Frequent Review and Revision

The student's transition plan needs to remain current and functionally relevant. The plan should be under constant scrutiny, with a major evaluation and revision taking place at least once per year.

Emerging Initiatives In Transition

As an increasing number of individuals with intellectual or multiple disabilities choose to participate in and experience typical life styles, new perspectives regarding transition have emerged. In response to these new perspectives, the focus of transition has evolved and expanded from one of preparation to one of planned support for the student in typical work and community contexts. Examples of emerging initiatives include:

- developing a network of natural supports at school and in the community;
- developing long-term advocacy including legal counselling;
- ensuring that the individual's voice is the central voice;
- systematically developing the skills required for self-determination and self-advocacy;
- broadening the definition of life skills and beginning the development early in life;
- increasing the opportunities for successful participation in typical school and community contexts;
- providing a variety of work experiences within the community;
- consideration of post-secondary education;
- an emphasis on community-based education;
- supported experience in community living and consideration of residential options;
- independent transportation skills;
- an emphasis on developing friendships;
- an emphasis on fitness, healthy life style and wellness;
- financial management; and
- guardianship and personal safety.

The Transition Meeting

The emphasis of the transition meeting is dependent on the student's age, grade, level of ability and the *life demands* of the next environment. The immediate issues of early childhood are different from those of adolescence or high school. As previously stated, however, desired adult outcomes are addressed at each stage.

Preschool, kindergarten, and elementary

A transition process is initiated by the transition coordinator inviting the potential team members to a meeting. During the preschool, kindergarten and elementary years, the transition typically consists of the current educational team meeting with the parents and future educational team to discuss the demands of the next environment and the support the student will require.

Common discussion topics at the preschool, kindergarten and elementary school level are:

- the student' strengths, interests, and favourite activities;
- PPP goals and objectives for the past year;
- any unique information about the student that the receiving team should know (e.g., technical aids, health concerns, medication);
- if a paraprofessional was employed, the tasks the paraprofessional performed, the style of student support, and the paraprofessional's role defined in relation to the teacher's;
- whether or not physical assistance was required and the type and methods used;
- personal care needs;
- the student's methods for communication and the methods used to communicate with the student;
- behaviour support techniques that have been successful and methods use to manage inappropriate behaviour;
- methods used to involve the student in the different school subjects;
- classroom instruction techniques used to involve the student (e.g., cooperative learning, multi-intelligence learning, open ended research);
- descriptions of how assignments were modified or adapted to enable the student to be successful;
- a review of a portfolio of the student's work, and the type of adaptations used;
- ideas for involving the student with her/his peers;
- names of friends and peers with whom the student has had a good relationship;
- unique environmental arrangements that have helped the student (e.g., desk arrangements, music, schedules, visual supports);

(continued)

- planning processes and communication techniques used by the sending team (e.g., how and when they met);
- social skill development;
- social-sexual instruction;
- staff training required for using any technical equipment; and
- as the student gets closer to leaving elementary school to attend either junior high school or high school the educational team has to consider the environmental demands that will be placed on the student (e.g., crowded hallways, lockers, frequent class changes, room changes, multiple classroom teachers, physical education clothing, cafeteria) and prepare for them.

High school

When the student is in high school, the transition begins to focus on leaving school and entering the adult world of work or post-secondary education. Ideally, this planning should begin as soon as the student enters the high school program. McLeod (1999) has suggested a five year plan for transition planning in the *School to Life Transition Handbook: Five Steps to Successful Transition.*

At the transition meetings during high school, typical issues for discussion are:

- the student's preferences and goals for a possible career;
- the student's personal profile, gifts and capacities and the development of skills crucial to the student's quality of life;
- creation of a realistic vision for the student based on the student's desired future;
- the supports necessary for the student to learn a job and live a life style according to her/his preferences and potential;
- the formal and informal networks that will need to be developed to support the student in the present environment and after leaving school;
- developing advocacy for the student now and after leaving school;
- continued development of self-determination and self-advocacy;
- how community services will be used;
- living arrangements after leaving school;
- how community involvement will be maximized;
- optimizing social competence;
- social-sexual instruction and development of relationships;
- fostering friendships;
- developing leisure interests;
- health concerns and developing a healthy life style;
- financial arrangements;
- support from social services;
- input from community representatives; and
- long term care (e.g., trust, will, insurance).

All transition meetings should end by clarifying the action steps that have been planned, the persons responsible for each action and a time line indicating when the actions should be completed. A method for monitoring the transition development and evaluating the effectiveness should also be chosen.

Auser (1998) has offered a organizational scheme to assist planning the transition meeting, and documenting the discussion (see Appendix L).

The Planning Alternate Tomorrows With Hope (PATH) (Pearpoint, O'Brien, & Forest, 1993) process offers the opportunity to extend the MAPS process, and can assist with addressing the more sensitive and complex issues related to transition in more depth and thoroughness.

Community Resources

At the time of printing, the more frequently used community resources to assist the educational team with the issues involved in transition are:

Alvin Buckwold Child Development Program,
Kinsmen Children Centre
1319 Colony St.
Saskatoon, SK
(306) 655-1070

Community Living Division
Government of Saskatchewan
(contact can be made through regional offices)

Saskatchewan Abilities Council
2310 Louise Ave.
Saskatoon, SK
(306) 374-4448

Saskatchewan Association for Community Living
3031, Louise St.
Saskatoon, SK
(306) 955-3344

Saskatchewan Association of Rehabilitation Centres
111 Cardinal Cres.
Saskatoon, SK
(306) 933-0616

Wascana Rehabilitation Centre
2180 23rd Ave.
Regina, SK
(306) 766-5100

In addition to the above resources, a comprehensive list of provincial support organizations is available from the Saskatchewan Association for Community Living. It may also be helpful to contact a support organization that is specific to the student's disability or condition; for example: The Canadian National Institute for the Blind, Autism Treatment Services of Saskatchewan Inc., the Saskatchewan Deaf and Hard of Hearing Association, Fetal Alcohol Syndrome Support Network and the Learning Disabilities Association of Saskatchewan.

Recommended Reading

Asselin, S. B., Todd-Allen, M., & deFur, S. (1998). Transition coordinators: Define yourselves. *Teaching Exceptional Children, 30*(3), 11-15.

Benz, M., Yovanoff, P., & Doren, B. (1997). School-to-work components that predict postschool success for students with and without disabilities. *Exceptional Children, 63*(2), 151-166.

Brown, J. M., Zager, D., Brown, P., & Price, L. (1998). Transition practices for students with mental retardation and developmental disabilites. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 225-236). Austin, TX: PRO-ED, Inc.

Buswell, B. (1999). Families: The key to continuity. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 171-181). Baltimore: Paul H. Brookes Publishing Co.

Butterworth, J. R., & Ryndak, D. L. (1996). Planning for transition across ages and settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 289-315). Needham Heights, MA: Allyn and Bacon.

Grigal, M., Test, D. W., Beattie, J., & Wood, W. M. (1997). An evaluation of transition components of individualized education. *Exceptional Children, 63*(3), 357-372.

Knight, D., & Aucoin, L. (1999). Assessing job-readiness skills. *Teaching Exceptional Children, 31*(5), 10-17.

McLeod, R. (1999). *School to life transition handbook: Five steps to successful planning.* Saskatoon, SK: Saskatchewan Association for Community Living.

Patton, J. R., Cronin, M. E., & Jairrels, V. (1997). Curricular implications of transition: Life skills instruction as as integral part of transition education. *Remedial and Special Education, 18*(5), 294-306.

Pearpoint, J.,O'Brien, J., & Forest, M. (1993). *PATH.* Toronto, ON: Inclusion Press.

Powers, L. E., & Sowers, J. (1994). Transitions to adult living: Promoting natural supports and self-determination. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication interaction and participation* (pp. 215-248). San Diego, CA: Singular Publishing.

Salembier, G. B., & Furney, K. S. (1998). Transition from school to adult life. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 113-139). Baltimore: Paul H. Brookes Publishing Co.

Stopka, C., Pomeranz, J., Siders, R., Dykes, M. K., & Goodman, A. (1999). Transition skills for wellness. *Teaching Exceptional Children, 31*(3), 6-11.

Bibliography

Abrams, B. J., & Segal, A. (1998). How to prevent aggressive behavior. *Teaching Exceptional Children, 30*(4), 10-15.

Agran, M., & Moore, S. C. (1994). *How to teach self-instruction of job skills.* Washington, DC: American Association on Mental Retardation.

Ainge, D., Colvin, G., & Baker, S. (1998). Analysis of perceptions of parents who have children with intellectual disabilities: Implications for service providers. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(4), 331-341.

Alberta Education. (1995). *Individualized program plans.* Edmonton, AB: Alberta Education.

Alberta Education. (1995). *Essential and supportive skills for students with developmental disabilities.* Edmonton, AB: Alberta Education.

Alberta Education. (1995). *Teaching for student differences.* Edmonton, AB: Alberta Education.

Alper, S. (1996). The relationship between full inclusion and other trends in education. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 1-18). Needham Heights, MA: Allyn and Bacon.

Alper, S. (1996). An ecological approach to identifying curriculum content for inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 19-34). Needham Heights, MA: Allyn and Bacon.

Alper, S. (1996). Instructional strategies for inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 125-138). Needham Heights, MA: Allyn and Bacon.

Alper, S. (1996). Interacting with nondisabled peers. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 139-153). Needham Heights, MA: Allyn and Bacon.

Alper, S. (1996). Application of the process to ecological domains. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 155-176). Needham Heights, MA: Allyn and Bacon.

Alper, S., McMullen, V., McMullen, R. D., & Miller, P. J. (1996). Application to special education curricular areas with no general education parallels. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 215-225). Needham Heights, MA: Allyn and Bacon.

Anderson P.L. (1997). *Case studies for inclusive schools.* Austin, TX: PRO-ED, Inc.

Anderson, C., & Katisvannis, A. (1997). By what token economy? A classroom learning tool for inclusive settings. *Teaching Exceptional Children, 29*(4), 65-69.

Angrosino, M. (1998). Mental disability in the United States: An interactionalist perspective. In R. Jenkins (Ed.), *Questions of competence* (pp. 25-53). Cambridge, UK: Cambridge University Press.

Arbuckle, M. A., & Murray, L. B. (1989). *Building systems for professional growth: An action guide.* Andover, MA: The Regional Laboratory for Education Improvement of the Northwest and Islands.

Archer, A. (1996). Computer software for young language delayed children. In M. C., Sitko, & C. S., Sitko. (Eds.), *Exceptional solutions: Computers and students with special needs* (pp. 13-28). London, ON: University of Western Ontario.

Arndt, S. (Personal Communication, November 19, 1999).

Arnold-Reid, G. S., Schloss, P. T., & Alper, S. (1997). Teaching meal planning to youth with mental retardation in natural settings. *Remedial and Special Education, 18*(3), 166-173.

Asselin, S. B., Todd-Allen, M., & deFur, S. (1998). Transition coordinators: Define yourselves. *Teaching Exceptional Children, 30*(3), 11-15.

Auser, R. (1998). *Transition.* Saskatoon, SK: Saskatoon Catholic Schools.

Bahr, M. W., Whitten, E., Dieker, L., Kocarek, C. E., & Manson, D. (1999). A comparison of school-based intervention teams: Implications for educational and legal reform. *Exceptional Children, 66*(1), 67-84.

Bailey, P., Cryer, D., Harms, T., Osborne, S., & Kniest, B. (1996). *Active learning for children with disabilites: A manual for use with the active learning series.* Don Mills, ON: Addison-Wesley Publishing Co.

Bambara, L., Koger, F., Katzer, T., & Davenport, T.A. (1995). Embedding choice in the context of daily routines: An experimental case study. *The Journal of the Association for Persons with Severe Handicaps, 20*(3), 185-195.

Bambara, L., & Koger, F. (1996). *Opportunities for daily choice making.* Washington, DC: American Association on Mental Retardation.

Bambara, L., & Knoster, T. (1998). *Designing positive behavior support plans.* Washington, DC: American Association on Mental Retardation.

Bambara, L., Cole, C. L., & Koger, F. (1998). Translating self-determination concepts into support for adults with severe disabilities. *The Journal of the Association for Persons with Severe Handicaps, 23*(1), 27-37.

Bambury, J., Wilton, K., & Boyd, A. (1999). Effects of two experimental educational programs on the socio-sexual knowledge and attitudes of adults with mild intellectual disability. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(2), 207-211.

Barnett, C., & Monda-Amaya, L. (1998). Principals' knowledge of and attitudes toward inclusion. *Remedial and Special Education, 19*(3), 181-192.

Battle, D. A., Dickens-Wright, L. L., & Murphy, S.C. (1999). How to empower adolescents: Guidelines for effective self-advocacy. *Teaching Exceptional Children, 30*(3), 28-33.

Baxter, C., Cummins, R. A., & Polak, S. (1995). A longitudinal study of parental stress and support: From diagnosis of disability to leaving school. *International Journal of Disability, Development and Education, 42*(2), 125-136.

Beakley, B. A., & Yoder, S. L. (1998). Middle schoolers learn community skills. *Teaching Exceptional Children, 30*(3), 16-21.

Beninghof, A. M., & Singer, A. L. (1995). *Ideas for inclusion: The school administrator's guide.* Longmont, CO: Sopris West.

Benz, M., & Lindstrom, L. (1997). *Building school-to-work programs: Strategies for youth with special needs.* Austin, TX: PRO-ED, Inc.

Benz, M., Yovanoff, P., & Doren, B. (1997). School-to-work components that predict postschool success for students with and without disabilities. *Exceptional Children, 63*(2), 151-166.

Bissell, J., Fisher, J., Owens, C., & Polcyn, P. (1988). *Sensory handbook: A guide for implementing and modifying activities in the classroom.* Torrence, CA: Sensory Integration International.

Black, K. (1995). *Making inclusion work: A guide to everyday practices.* Cambridge, MA: Brookline Books.

Black, R. S., & Langone, J. (1997). Social awareness and transition to employment for adolescents with mental retardation. *Remedial and Special Education, 18*(4), 214-222.

Block, M. (1994). *Including students with disabilities in regular physical education.* Baltimore: Paul H. Brookes Publishing Co.

Block, M., & Burke, K. (1999). Are children with disabilities receiving appropriate physical education? *Teaching Exceptional Children, 31*(3), 24-29.

Blum, H. T., & Yocum, D. J. (1996). A fun alternative: Using instructional games to foster student learning. *Teaching Exceptional Children, 29*(2), 60-63.

Boudah, D. J., Deshler, D. D., Schumaker, J. B., Lenz, B. K., & Cook, B. (1997). Student-centered or content-centered? A case study of a middle school teacher's lesson planning and instruction in inclusive classes. *Teacher Education and Special Education, 20*(3), 189-203.

Brambury, J., Wilton, K., & Boyd, A. (1999). Effects of two experimental educational programs on the socio-sexual knowledge and attitudes of adults with mild intellectual disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(2), 207-211.

Bramston, P., & Fogarty, G.J. (1995). Measuring stress in the mildly intellectually handicapped: The factorial structure of the subjective stress scale. *Research in Developmental Disabilities, 16*(2), 117-131.

Branham, R. S., Collins, B.C., Schuster, J. W., & Kleinert, H. (1999). Teaching community skills to students with moderate disabilities: Comparing combined techniques of classroom simulation, videotape, modelling, and community-based instruction. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(2), 170-181.

Brearly, G. (1997). *Counselling children with special needs.* Maiden, MA: Blackwell Science, Inc.

British Columbia Ministry of Education: Special Education. (1998). *Students with intellectual disabilities: A resource guide for teachers.* Retreived July 17, 2001, from http://www.bced.gov.ca/specialed.

Browder, D., Cooper, K. J., & Lim, L. (1998). Teaching adults with severe disabilities to express their choice of settings for leisure activities. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(3), 228-238.

Brown, F., & Cohen, S. (1996). Self-determination and young children. *The Journal of the Association for Persons with Severe Handicaps, 21*(1), 22-30.

Brown, F., Evans, I., Weed, K., and Owen V. (1987). Delineating functional competencies: A component model. *Journal of the Association for Persons with Severe Handicaps 12*(2).

Brown, F., Gothelf, C. R., Guess, D., & Lehr, D. H. (1998). Self-determination for individuals with the most severe disabilities: Moving beyond chimera.. *The Journal of the Association for Persons with Severe Handicaps, 23*(1), 17-26.

Brown, J. M., Zager, D., Brown, P., & Price, L. (1998). Transition practices for students with mental retardation and developmental disabilites. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 225-236). Austin, TX: PRO-ED, Inc.

Bruns, D., & Fowler, S. A. (1999). Designing culturally sensitive transition plans for young children and their families. *Teaching Exceptional Children, 31*(5), 26-31.

Buck, G. H., & Gregoire, M. A. (1996). It's music to my ears! Teaching music-related leisure skills to secondary students with disabilities. *Teaching Exceptional Children, 29*(1), 44-47.

Burke, M. D., Hagan, S. L., & Grossen, L. (1998). What curricular designs and strategies accommodate diverse learners. *Teaching Exceptional Children, 31*(1), 34-39.

Burns, E. (1998). *Test accommodations for students with disabilities*. Springfield, IL: Charles C. Thomas Publisher, Ltd.

Burns, M., Storey, K., & Certo, N.J. (1999). Effects of service learning on attitudes towards students with severe disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(1), 58-65.

Buswell, B. (1999). Families: The key to continuity. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 171-181). Baltimore: Paul H. Brookes Publishing Co.

Butterworth, J. R., & Ryndak, D. L. (1996). Planning for transition across ages and settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 289-315). Needham Heights, MA: Allyn and Bacon.

Buysse, W., Wesley, P. W., Bryant, D., & Gardner, D. (1999). Quality of early childhood programs in inclusive and noninclusive settings. *Exceptional Children, 65*(3), 301-314.

Calculator, S. N. (1994). Designing and implementing communicative assessments in inclusive settings. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 113-182). San Diego, CA: Singular Publishing.

Calculator, S. N. (1994). Communication intervention as a means to successful inclusion. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 183-214). San Diego, CA: Singular Publishing.

Calculator, S. N., & Jorgensen (Eds.). (1994). *Including students with severe disabilities in schools: Fostering communication, interaction, and participation*. San Diego: Singular Publishing.

Campbell, P. C., Campbell, C. R., & Brady, M. P. (1998). Team environmental assessment mapping system: A method for selecting curriculum goals for students with disabilites. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(3), 264-272.

Canfield, H., & Locke, P. (1996). *Book of possibilities: Activities using simple technology: Social studies, language arts, reading, science, spelling, math*. (secondary ed.). Minneapolis, MN: AbleNet, Inc.

Canfield, H., & Locke, P. (1998). *Book of possibilities: Activities using simple technology; Academics, classroom activities, extracurricular events, school routines*. (secondary ed.). Minneapolis, MN: AbleNet, Inc.

Carpenter, S. L., & McKee-Higgins, E. (1996). Behavior management in inclusive classrooms. *Remedial and Special Education, 17*(4), 195-203.

Carr, E. G., Levin, L., McConnachie, G., Carlson, J. I., Kemp, D. C., & Smith, C. E. (1994). *Communication-based intervention for problem behavior: A user's guide for producing postive change*. Baltimore: Paul H. Brookes Publishing Co.

Carr, E., Hornu, R., Turnbull, A., Margan, J., Magito McLaughlin, D., McAtee, M., Smith, C., Ryan, K., Ruef, M., Doolubh, A., & Braddock, D. (1999). *Positive behavior support for people with developmental disabilties: A research synthesis*. Washington, DC: American Association on Mental Retardation.

Cavalier, A. R., & Brown, C. C. (1998). From passivity to participation: The transformational possibilities of speech-recognition technology. *Teaching Exceptional Children, 30*(6), 60-65.

CEC Professional Standards and Practice Standing Committee. (1997). CEC guidelines for developing a mentorship program for beginning special education teachers. *Teaching Exceptional Children, 29*(6), 19-21.

Chalmers, L., & Faliede, T. (1996). Successful inclusion of students with mild/ moderate disabilities in rural school settings. *Teaching Exceptional Children,* 29(1), 22-26.

Chandler, L. K., Dahlquist, C. M., & Feltz, C. (1999). The effects of team-based functional assessment on the behavior of students in classroom settings. *Exceptional Children, 66*(1), 101-122.

Cheney, D., Manning, B., & Upham, D. (1997). Project DESTINY: Engaging families of students with emotional and behavioral disabilities. *Teaching Exceptional Children, 30*(1), 24-29.

Cheng Gorman, J. (1999). Understanding children's hearts and minds. *Teaching Exceptional Children, 31*(3), 72-77.

Christiansen, J., & Vogel, J. R. (1998). A decision model for grading students with disabilities. *Teaching Exceptional Children, 31*(2), 36-43.

Collet-Klingenberg, L. L. (1998). The reality of best practices in transition: A case study. *Exceptional Children, 65*(1), 67-78.

Collins, B. C., Ault, M. J., Hemmeter, M. L., & Doyle, P. M. (1996). Come play! Developing children's social skills in an inclusive preschool. *Teaching Exceptional Children, 29*(1), 16-21.

Collins, B. C., Hall, M., & Branson, T. A. (1997). Teaching leisure skills to adolescents with moderate disabilities. *Exceptional Children, 63*(4), 499-512.

Colvin, G., Ainge, D., & Nelson, R. (1997). How to defuse defiance, threats, challenges, confrontations... *Teaching Exceptional Children, 29*(6), 47-51.

Colyer, S. P., & Collins, B. C. (1996). Using natural cues within prompt levels to teach the next dollar strategy to students with disabilities. *The Journal of Special Education, 30,* 305-318.

Cook, L., & Friend, M. (1998). Co-teaching: Guidelines for creating effective practices. In E. L. Meyen, G. A. Vergason, & R. J. Whelan (Eds.), *Educating students with mild disabilities: Strategies and methods* (pp. 453-480). Denver, CO: Love Publishing Co.

Cooley, E., & Yovanoff, P. (1996). Supporting professionals-at-risk: Evaluating interventions to reduce burnout and improve retention of special educators. *Exceptional Children, 62*(4), 336-355.

Cooper, C. S., & McEvoy, M. A. (1996). Group friendship activities: An easy way to develop the social skills of young children. *Teaching Exceptional Children, 28*(3), 67-69.

Cooper, K. J., & Browder, D. (1998). Enhancing choice and participation for adults with severe disabilities in community-based instruction. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 252-260.

Corral, N., & Anita, S. D. (1997). Self-talk: Strategies for success in math. *Teaching Exceptional Children, 29*(4), 42-45.

Cramer, S., Erkus, A., Mayweather, K., Pope, K., Roeder, J., & Tone, T. (1997). Connecting with siblings. *Teaching Exceptional Children, 30*(1), 46-51.

Cranston, R. (1993). *The practice of inclusion*. Workshop presented at the 1993 CEC Saskatchewan Provincial Conference, Saskatoon, SK.

Crocker, A. D., & Orr, R. R. (1996). Social behaviors of children with visual impairments enrolled in preschool programs. *Exceptional Children, 62*(5), 451-462.

Cronin, M. E., & Patton, J. R. (1993). *Life skills instruction for all students with special needs: A practical guide for integrating real-life content into the curriculum*. Austin, TX: PRO-ED, Inc.

Cross, G., & Jones, M. J. (1996). Addressing medical and emergency procedures in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 269-288). Needham Heights, MA: Allyn and Bacon.

Danforth, S., & Rhodes, W. C. (1997). Deconstructing disability: A philosophy for inclusion. *Remedial and Special Education, 18*(6), 357-366.

Daniels, V. (1998). How to manage disruptive behavior in inclusive classrooms. *Teaching Exceptional Children, 30*(4), 26-31.

Daniels, V., & Vaughn, S. (1999). A tool to encourage "best practice" in full inclusion. *Teaching Exceptional Children, 31*(5), 48-55.

Demchak, M. (1998). Facilitating friendships and social relationships between students with disabilities and their peers. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 185-190). Austin, TX: PRO-ED, Inc.

Demchack, M. (1997). *Teaching students with severe disabilities in inclusive settings*. Washington, DC: American Association on Mental Retardation.

Denti, L. G., & Meyers, S. B. (1997). Successful ability awareness programs: The key to planning. *Teaching Exceptional Children, 29*(4), 52-56.

Dieker, L., & Barnett, C. A. (1996). Effective co-teaching. *Teaching Exceptional Children, 29*(1), 5-7.

Doelling, J., Bryde, S., & Parette, H. P. Jr. (1997). What are multidisciplinary and ecobehavioural approaches? And how can they make a difference for students with traumatic brain injuries? *Teaching Exceptional Children, 30*(1), 56-60.

Doren, B., Bullis, M., & Benz, M. R. (1996). Predictors of victimization of adolescents with disabilities in transition. *Exceptional Children, 3*(1), 7-18.

Dorow, L., Fisch, L., Uhry, J. K., & Ellsworth, N. (1998). Knowledge, values, and teaching practices needed for inclusive teaching. *The Educational Forum, 62*(3), 226-233.

Downings, J. E. (1996). *Including students with severe and multiple disabilities in typical classrooms: Practical strategies for teachers.* Baltimore: Paul H. Brookes Publishing Co.

Doyle, M. B., York-Barr, J., & Kronberg, R. M. (1996). *Collaboration: Providing support in the classroom: Facilitator guide.* In J. York-Barr, M. A., Kronberg & M. B. Doyle (Series Eds.), *Creating inclusive school communities. A staff development series for general and special educators.* Baltimore: Paul H. Brookes Publishing Co.

Duker, P. C., Van Deursen, W., De Wit, M., & Palmen, A. (1997). Establishing a receptive repertoire of communication gestures with individuals who are profoundly mentally retarded. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(4), 357-361.

Duncan, J. M., & Prelock, P. (1998). Communication systems in the classroom. In M. Giangreco (Ed.), *Quick-guides to inclusion 2* (pp. 57-85). Baltimore: Paul H. Brookes Publishing Co.

Dunlap, G., Foster-Johnson, L., Clarke, S. C., Kern, L., & Childs, K. E. (1995). Modifying activities to produce functional outcomes: Effects on the problem behavior of students with disabilities. *The Journal of the Association for Persons with Severe Handicaps, 20*(4), 248-258.

Durand, M., & Crimmins, D. B. (1998). *The Motivation Assessment Scale.* Albany, NY: University of Albany

Dyck, N., Sundbye, N., & Pemberton, J. (1997). A recipe for efficient co-teaching. *Teaching Exceptional Children, 30*(2), 42-45.

Dye, G. A., & McConnell, J. (1997). Learning through rhyme. *Teaching Exceptional Children, 29*(4), 72-73.

Ellery, P. J., Rabak-Wagener, J., & Stacy, R. D. (1997). Special educators who teach health education: Their role and perceived ability. *Remedial and Special Education, 18*(5), 105-112.

Elliot, J., Ysseldyke, J., Thurlow, M., & Erickson, R. (1998). What about assessment and accountability? *Teaching Exceptional Children, 31*(1), 20-27.

Elliot, S. N., Kratochwill, T. R., & Gilbertson Schulte, A. (1998). The assessment accountability checklist. *Teaching Exceptional Children, 31*(2), 10-15.

Ellis, D. N., Wright, M., & Cronis, T. G. (1996). A description of the instructional and social interaction of students with mental retardation in regular physical education settings. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(3), 235-242.

Ellis, E. (1997). Watering up the curriculum for adolescents with learning disabilities: Goals of the knowledge dimension. *Remedial and Special Education, 18*(6), 326-346.

Ellis, E. (1998). Watering up the curriculum for adolescents with learning disabilities-part 2: Goals of the affective dimension. *Remedial and Special Education, 19*(2), 91-105.

English, K., Goldstein, H., Kaczmarek, L., & Shafer, K. (1996). "Buddy skills" for preschoolers. *Teaching Exceptional Children, 28*(3), 62-69.

English, K., Goldstein, H., Shafer, K., & Kaczmarek, L. (1997). Promoting interactions among preschoolers with and without disabilities: Effects of a buddy skills-training program. *Exceptional Children, 63*(2), 229-244.

Erickson, R., Ysseldyke, J., Thurlow, M., & Elliot, J. (1998). Inclusive assessments and accountability systems. *Teaching Exceptional Children, 31*(2), 4-9.

Erin, J. (1996). Children with multiple and visual disabilities. In C. Holbrook (Ed.), *Children with visual impairments: A parent's guide* (pp. 287-316). Bethesda, MD: Woodbine House.

Falvey, M. A., Givner, C. C., & Kimm, C. (1995). What is an inclusive school? In R. A. Villa & J. S. Thousand (Eds.), *Creating an inclusive school* (pp. 11-15). Alexandria, VA: Association for Supervision and Curriculum Development.

Farmer, T. W., & Farmer, E. M. Z. (1996). Social relationships of students with exceptionalities in mainstream classrooms: Social networks and homophily. *Exceptional Children, 62*(5), 431-450.

Federico, M. A., Herrold, W. G., & Venn, J. (1999). Helpful tips for successful inclusion. *Teaching Exceptional Children, 32*(1), 76-82.

Felber, S. A. (1997). Strategies for parent partnerships. *Teaching Exceptional Children, 30(*1), 20-23.

Feuerstein, R. (1979). *The dynamic assessment of retarded performers: The learning potential assesment device, theory, instruments, and techniques.* Baltimore: University Park Press.

Fickel, K. M., Schuster, J. W., & Collins, B. C. (1998). Teaching different tasks using different stimuli in a heterogeneous small group. *Journal of Behavior Education, 8*(2), 219-244.

Field, S., Hoffman, A., & Posch, M. (1997). Self-determination during adolescence. *Remedial and Special Education, 18*(5), 285-293.

Fisher, D., Pumpian, I., & Sax, C. (1998). High school students attitudes about and recommendations for their peers with significant disabilities. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 272-282.

Fisher, D., Sax, C., & Pumpian, I. (Eds.). (1999). *Inclusive high schools: Learning from contemporary classrooms.* Baltimore: Paul H. Brookes Publishing Co.

Forest, M., Lusthaus, E. (1989). Promoting educational equality for all students: Circles and MAPS. In S. Stainback, & M. Forest (Eds.), *Educating all students in the mainstream of education* (pp. 43-57). Baltimore: Paul H. Brookes Publishing Co.

Fisher, D., Pumpian, I., & Sax, C. (1999). We had to see it for ourselves. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 1-4). Baltimore: Paul H. Brookes Publishing Co.

Freeman, S., & Dake, L. (1996). *Teach me language: A language manual for children with autism, Asperger's syndrome and related developmental disorders.* Langley, BC: SKF Books.

French, N. K. (1997). Management of paraeducators. In A. Pickett & K. Gerlach (Eds.), *Supervising paraeducators in school settings* (pp. 96-169). Austin, TX: PRO-ED, Inc.

French, N. K. (1998). Working together: Resource teachers and paraeducators. *Remedial and Special Education, 19(*6), 357-368.

French, N. K. (1999). Paraeducators and teachers: Shifting roles. *Teaching Exceptional Children, 32*(2), 70-73.

French, N. K. (1999). Paraeducators: Who are they and what do they do? *Teaching Exceptional Children, 32*(1), 65-69.

Frost, L. A., & Bundy, A. S. (1994). *The picture exchange communication system: Training manual.* Cherry Hill, NJ: Pyramid Educational Consultants Inc.

Furney, K . S., Hasazi, S. B., & DeStefano, L. (1997). Transition policies, practices, and promises: Lessons from three states. *Exceptional Children, 63*(3), 343-356.

Gelfer, J. I., & Perkins, P. G. (1998). Portfolios: Focus on young children. *Teaching Exceptional Children, 31*(2), 44-47.

Gelheiser, L. M., McLane, M., Meyers, J., & Pruzek, R. M. (1998). IEP-specified peer interaction needs: Accurate but ignored. *Exceptional Children. 65*(1), 51-66.

Gent, P. J., & Gurecka, L. E. (1998). Service learning: A creative strategy for inclusive classrooms. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 261-271.

Gessler Werts, M., Wolery, M., Snyder, E. D., & Caldwell, N. K. (1996). Teachers' perception of the supports critical to the success of inclusion programs. *The Journal of the Association for Persons with Severe Handicaps, 21*(1), 9-21.

Gessler Werts, M., Wolery, M., Gast, D. L., & Holcombe, A. (1996). Sneak in some extra learning by using instructive feedback. *Teaching Exceptional Children, 28*(3), 70-71.

Giangreco, M., Cloninger, C. J., & Iverson, V.S. (1993). *Choosing options and accommodations for children: A guide to planning inclusive education.* Baltimore: Paul H. Brookes Publishing Co.

Giangreco, M. (1996). *Vermont interdependent services team approach (VISTA): A guide to coordinating educational support services.* Baltimore: Paul H. Brookes Publishing Co.

Giangreco, M. (Ed.). (1998). *Quick-guides to inclusion 2: Ideas for educating student with disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Giangreco, M., Edelman, S.W., Luiselli, T. E., & MacFarland, S. (1997). Helping or hovering? Effects of instructional assistant proximity on students with disabilities. *Exceptional Children, 64*(1), 7-18.

Giangreco, M., Edelman, S.W., MacFarland, S., & Luiselli, T.E. (1997). Attitudes about educational and related service provision for students with deaf-blindness and multiple disabilities. *Exceptional Children, 63*(3), 329-342.

Giangreco, M., & Cravedi-Cheng, L. (1998). Instructional strategies. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 29-56). Baltimore: Paul H. Brookes Publishing Co.

Gibb, G. S., Young, J. R., Allerd, K. W., Dyches, T. T.. Egan, M. W., & Ingram, C. F. (1997). A team-based junior high inclusion program: Parent perceptions and feedback. *Remedial and Special Education, 18*(4), 243-249.

Glasser, W. (1984). *Control theory: A new explanation of how we control our lives.* New York, NY: Harper and Row.

Goessling, D. P. (1998). Inclusion and the challenge of assimilation for teachers of students with severe disabilities. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 238-251.

Gonzalez Alvarez, L. I. (1998). A short course in sensitivity training. *Teaching Exceptional Children, 31*(1), 73-77.

Gray, C. (1993). *How to write social stories*. Jenison, MI: Jenison Public Schools.

Green, J. C., & Menscher, S. L. (1996). Management of excessive behavior in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 227-242). Needham Heights, MA: Allyn and Bacon.

Grenot-Scheyer, M., Jubala, K.A., Bishop, K. D., & Coots, J. J. (1996). *The inclusive school: Professional's guide.* Westminister, CA: Teacher Created Materials.

Gresham, F. M., & Elliot, S. N. (1991). *Social skills rating system.* Toronto, ON: Psycan.

Grigal, M., Test, D. W., Beattie, J., & Wood, W. M. (1997). An evaluation of transition components of individualized education. *Exceptional Children, 63*(3), 357-372.

Grigal, M. (1998). The time-space continuum: Using natural supports in inclusive classrooms. *Teaching Exceptional Children, 30*(6), 44-51.

Grineski, S. (1996). *Cooperative learning in physical education.* Champaign, IL: Human Kinetics.

Grossi, T. A., & Heward, W. L. (1998). Using self-evaluation to improve the work productivity of trainees in a community-based restaurant training program. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(3), 248-263.

Gutkin, T. B. (1996). Core elements of consultation service delivery for special service personnel: Rationale, practice, and some directions for the future. *Remedial and Special Education, 17*(6), 333-340.

Hadden, S., & Fowler, S. A. (1997). Preschool - A new beginning for children and parents. *Teaching Exceptional Children, 30*(1), 36-39.

Hall, A. M., Neuharth-Pritchett, S., & Belfiore, P. J. (1997). Reduction of aggressive behaviors with changes in activity: Linking descriptive and experimental analyses. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(4), 331-339.

Hammeken, P. A. (1995). *450 strategies for success: A practical guide for all educators who teach students with disabilities*. Minnetonka, MN: Peytral Publications.

Hammeken, P. A. (1996). *An essential guide for the paraprofessional: A practical reference tool for all paraprofessionals working in inclusionary settings*. Port Chester, NY: National Professional Resources, Inc.

Hammond, D. G., Zucker, S. H., Burstein, K. S., & Digangi, S. A. (1997). Computer mediated instruction for increasing regular education students' acceptance of students with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(4), 313-320.

Harris, K. C. (1996). Collaboration within a multicultural society: Issues for consideration. *Remedial and Special Education, 17*(6), 355-362.

Hemmeter, M. L., Jones Ault, M., Collins, B.C., & Meyer, S. (1996). The effects of teacher-implemented language instruction within free time activities. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(3), 203-212.

Hendrickson, J. M., Shokoohi-Yekta, M., Hamre-Nietupski, S., & Gable, R. A. (1996). Middle and high school students' perceptions on being friends with peers with severe disabilities. *Exceptional Children, 63*(1), 19-28.

Hertzog, N. B. (1998). Using open-ended learning activities to empower teachers and students. *Teaching Exceptional Children, 30*(6), 26-31.

Hilton, A., & Gerlach, K. (1997). Employment, preparation and management of paraeducators: Challenges to appropriate service for students with developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 71-76.

Hilton, A. (1998). A multidimensional model for understanding and working with parents and families. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 275-286). Austin, TX: PRO-ED, Inc.

Hilton, A., & Ringlaben, R. (Eds.). (1998). *Best and promising practices in development disabilities*. Ausin, TX: PRO-ED, Inc.

Hingsburger, D. (1995). *Just say know: Understanding and reducing the risk of sexual victimization of people with developmental disabilities*. Edmonton, AB: Diverse City Press Inc. / La Presse Diverse Cite Inc.

Hingsburger, D. (1996). *Developing positive approaches to behaviour problems.* 1999 Presentation to the Saskatchewan Association of Community Living.

Hobbs, T., & Westling, D. L. (1998). Promoting successful inclusion through collaborative problem-solving. *Teaching Exceptional Children, 31*(1), 4-11.

Hodgdon, L. (1995). *Visual stategies for improving communication: Practical supports for school and home.* Troy, MI: QuirkRoberts Publishing.

Hodgkin, B. (1996). Drama and the physically disabled. In A. Kempe (Ed.), *Drama education and special needs* (pp. 105-129). Cheltenham, UK: Stanley Thornes Publishers Ltd.

Holbrook, C. (1996). What is a visual impairment? In C. Holbrook (Ed.), *Children with visual impairments: A parent's guide* (pp. 1-20). Bethesda, MD: Woodbine House.

Horwath, A. (1998). Empowering family members to work as partners with professionals. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 287-294). Austin, TX: PRO-ED, Inc.

Hoskins, B. (1996). *Developing inclusive schools: A guide.* Bloomington, IN: CASE Research Committee.

Hourcade, J. J., Parette, H. P., & Huer, M. B. (1997). Family and cultural alert: Considerations in assistive technology assessment. *Teaching Exceptional Children, 30*(1), 40-45.

Huetigg, C., & O'Connor, J. (1999). Wellness programming for preschoolers with disabilities. *Teaching Exceptional Children, 31*(3), 12-17.

Hughes, C., Eisenman, L. T., Hwang, B., Kim, J. H., Killian, D. J., & Scott, S. V. (1997). Transition from secondary special education to adult life: A review and analysis of empirical data. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 85-104.

Hughes, C., Kim, J. H., Hwang, B., Killian, D. J., Fischer, C. M., Brock, M. L., Godshall, J. C., & Houser, B. (1997). Practitioner-validated secondary transition supported strategies. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(3), 201-212.

Hughes, C., Pitken, S. E., & Lorden, S.W. (1998). Assessing preferences and choices of persons with severe and profound mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(4), 299-316.

Hughes, C., Guth, C., Hall, S., Presley, J., Dye, M., & Byers, C. (1999). "They are my best friends." *Teaching Exceptional Children, 31*(5), 32-37.

Hunt, P., Alwell, M., Farron-Davis, F., & Goetz, L. (1996). Creating socially supportive environments for fully included students who experience multiple disabilities. *The Journal of the Association for Persons with Severe Handicaps, 21,* 53-71.

Hunt, P., Farron-Davis, F., Wrenn, M., Hirose-Hatae, A., & Goetz, L. (1997). Promoting interactive partnerships in inclusive educational settings. *The Journal of the Association for Persons with Severe Handicaps, 22*(3), 127-137.

Huntington, D. (1998). Effective instructional interventions for students with developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 119-126). Austin, TX: PRO-ED, Inc.

Huntington, D. (1998). Classroom management: Promising and effective practices for students with developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 255-262). Austin, TX: PRO-ED, Inc.

Hurlburt, B. (Personal Communication, November 19, 1999).

Husch Foote, S. (Personal Communication, July 25, 2001).

Hutinger, P., Johanson, J., & Stoneburner, R. (1996). Assistive technology applications in educational programs of children with multiple disabilities: A case study report on the state of practice. *Journal of Special Education Technology, 13,* 16-35.

Jackson, T. L., & Altman, R. (1996). Self-management of aggression in an adult male with mental retardation and severe behavior disorders. *Education and Training in Mental Retardation and Developmental Disabilities. 31*(1), 55-65.

Jakupcak, A. J. (1998). School programs for successful inclusion of all students. In J. W. Putnam (Ed.), *Cooperative learning and strategies for inclusion* (pp. 203-228). Baltimore: Paul H. Brookes Publishing Co.

Jayanthi, M., Bursuck, W., Epstein, M. H., & Polloway, E. A. (1997). Strategies for successful homework. *Teaching Exceptional Children, 30*(1), 4-7.

Jenkins, R. (1998). Culture, classification and (in)competence. In R. Jenkins (Ed.), *Questions of competence* (pp. 1-24). Cambridge, UK: Cambridge University Press.

Joffee, E., & Ehresman, P. (1997). Learners with visual and cognitive impairments. In B. B. Blasch, W. R. Wiener, & R. L. Welsh (Eds.), *Foundations of orientation and mobility* (pp. 483-499). New York, NY: A F B Press.

Joffee, E., & Rower, D. (1997). Learners with visual and hearing impairments. In B. B. Blasch, W. R. Wiener, & R. L. Welsh (Eds.), *Foundations of orientation and mobility* (pp. 500-512). New York, NY: A F B Press.

Johnson, J. M., Baumgart, D., Helmstetter, E., & Curry, C. A. (1996). *Augmenting basic communication in natural contexts*. Baltimore: Paul H. Brookes Publishing Co.

Johnson, D. E., Bullock, C. C., & Ashton-Shaeffer, C. (1997). Families and leisure: A context for learning. *Teaching Exceptional Children, 30*(2), 30-35.

Johnson, D. W., & Johnson, R. T. (1998). Cultural diversity and cooperative learning. In J. W. Putnam (Ed.), *Cooperative learning and strategies for inclusion* (pp. 67-86). Baltimore: Paul H. Brookes Publishing Co.

Johnson, D. E., Johnson, R. T., & Holuber, E. (1994). *Cooperative learning in the classroom*. Alexandria, VA: Association for Supervision and Curriculum.

Jones, V. F. (1996). "In the face of predictable crises" Developing a comprehensive treatment plan for students with emotional or behavioural disorders. *Teaching Exceptional Children, 29*(2), 54-59.

Jorgensen, C. M. (1994). Developing individualized inclusive educational programs. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 27-74). San Diego, CA: Singular Publishing Group.

Jorgensen, C. M. (1994). Modifying the curriculum and short-term objectives to foster inclusion. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction, and participation* (pp. 75-112). San Diego, CA: Singular Publishing.

Jorgenson, C. M. (1994). The evolution of best practices in educating students with severe disabilities. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with disabilities in schools: Fostering communication, interaction, and participation* (pp. 1-26). San Diego, CA: Singular Publishing Group.

Jurowski, E., & Amado, A. N. (1993). Affection, love, intimacy and sexual relationships. In A. N. Amado (Ed.), *Friendships and community connections between people with and without developmental disabilities* (pp. 129-151). Baltimore: Paul H. Brookes Publishing Co.

Kagan, S. (1998). New cooperative learning, multiple intelligences, and inclusion. In J. W. Putnam (Ed.), *Cooperative learning and strategies for inclusion* (pp. 105-136). Baltimore: Paul H. Brookes Publishing Co.

Kagen, S. (1992). *Cooperative learning.* San Jaun Capistrano, CA: Resources for Teachers.

Kay, P. K., & Fitzgerald, M. (1997). Parent + teachers + action research = real involvement. *Teaching Exceptional Children, 30*(1), 8-13.

Kemp, D. C., & Carr, E. G. (1995). Reduction of severe problem behavior in community employment using an hypothesis-driven multicomponent intervention approach. *The Journal of the Association for Persons with Severe Handicaps, 20*(4), 229-247.

Kempe, A. (1996). Drama in special education. In A. Kempe (Ed.), *Drama education and special needs* (pp. 12-31). Cheltenham, UK: Stanley Thornes Publishers Ltd.

Kempe, A. (1996). Special education needs and approaches in drama. In A. Kempe (Ed.), *Drama education and special needs* (pp. 1-11). Cheltenham, UK: Stanley Thornes Publishers Ltd.

Kennedy, C. H., Shukla, S., & Fryxell, D. (1997). Comparing the effects of educational placement on the social relationships of intermediate school students with severe disabilities. *Exceptional Children, 64*(1), 31-48.

Kennedy, C. H., & Meyer, K. A. (1998). The use of psychotopic medication for people with severe disabilities and challenging behavior: Current status and future directions. *The Journal of the Association for Persons with Severe Handicaps 23*(2), 83-97.

King-Sears, M. E., & Cummings, C. S. (1996). Inclusive practices of classroom teachers. *Remedial and Special Education, 17*(4), 217-225.

King-Sears, M. E. (1999). Teacher and researcher co-design self management content for an inclusive setting: Research training, intervention, and generalization effects on student performance. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(2), 134-156.

Kircaali-Iftar, G., Birkan, B., & Uysal, A. (1998). Comparing the effects of structural and natural language use during direct instruction with children with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(4), 375-385.

Kliewer, C. (1998). Citizenship in the literate community: An ethnography of children with Down syndrome and the written word. *Exceptional Children, 64*(2), 167-180.

Kliewer, C. (1998). *Schooling children with Down syndrome: Toward an understanding of possibility.* New York, NY: Teachers College Press.

Kliewer, C., & Landis, D. (1999). Individualized literacy instruction for young children with moderate to severe disabilities. *Exceptional Children, 66*(1), 85-100.

Kling, B. (1997). Empowering teachers to use successful strategies. *Teaching Exceptional Children, 30*(2), 20-25.

Knight, D., & Aucoin, L. (1999). Assessing job-readiness skills. *Teaching Exceptional Children, 31*(5), 10-17.

Knowlton, E. (1998). Appropriate curriculum for students with developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 73-86). Austin, TX: PRO-ED, Inc.

Knowlton, E. (1998). Considerations in the design of personalized curricular supports for students with developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(2), 95-107.

Koegel, L. K., Koegel, R. L., & Dunlap, G. (1996). *Positive behavioral support: Including people with difficult behavior in the community.* Baltimore: Paul H. Brookes Publishing Co.

Koroluk, J. (1999). *Managing health concerns.* Unpublished manuscript.

Kozub, F. M., & Porretta, D. L. (1999). Internal and external attributions for levels of perceived physical competence in children with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(1), 35-42.

Kroeger, S. D., Leibold, C. K., & Ryan, B. (1999). Creating a sense of ownership in the IEP process. *Teaching Exceptional Children, 32*(1), 4-9.

Kumin, L. (1994). *Communication skills in children with down syndrome: A guide for parents.* Bethesda, MD: Woodbine House, Inc.

Kunc, N. (1992). The need to belong: Rediscovering Maslov's hierarchy of needs. In R. A. Villa, J. S. Thousand, W. Stainback, & S. Stainback (Eds.), *Restructuring for caring and effective education: An administrative guide to creating heterogeneous schools* (pp. 25-39). Baltimore: Paul H. Brookes Publishing Co.

Lahm, E. A., & Nickels, B. L. (1999). What do you know? Assistive technology competencies for special educators. *Teaching Exceptional Children, 32*(1), 56-64.

Laine, C. J., & Follansbee, R. (1996). Word prediction technology and the writing of low functioning deaf students. In Sitko, M. C., & Sitko, C. S., (Eds.), *Exceptional solutions: Computers and students with special needs* (pp. 49-60). London, ON: University of Western Ontario.

Laine, C. J., & Breen, M. (1996). Writing by talking to the computer: Experiences with speech recognitions systems. In Sitko, M. C., & Sitko, C. S., (Eds.), *Exceptional solutions: Computers and students with special needs* (pp. 125-140). London, ON: University of Western Ontario.

Lancioni, G., O'Reilly, M., Campodonico, F., & Mantini, M. (1998). Mobility versus sedentariness in task arrangements for people with multiple disabilities: An assessment of preferences. *Research in Developmental Disabilities, 19*(6), 465-475.

Lane, G. M. (1996). The effectiveness of two strategies for teaching students with blindness and mental retardation. *The Journal of visual impairment and blindness, 90,* 125-133.

Lange, C. M., Ysseldyke, J., & Lehr, C. A. (1997). Parents perspectives on school choice. *Teaching Exceptional Children, 30*(1), 14-19.

Larson, P. J., & Maag, J. W. (1998). Applying functional assessment in general education classrooms: Issues and recommendations. *Remedial and Special Education, 19*(6), 338-349.

Lazarus, B. D. (1998). Say cheese! Using personal photographs as prompts. *Teaching Exceptional Children, 30*(6), 4-6.

Levack, N. (1994). *Low vision: A resource guide with adaptations for students with visual impairments* (2nd ed.). Austin, TX: Texas School for the Blind and Visually Impaired.

Levine, J. M. (1996). Including children dependent on ventilators in school. *Teaching Exceptional Children, 28*(3), 25-29.

Levison, L., & St.Onge, I. (1999). *Disability awareness in the classroom: A resource tool for teachers and students*. Springfield, IL: Charles C. Thomas.

Lewis, R. B. (1997). Changes in technology use in California's special education programs. *Remedial and Special Education, 18*(4), 233-242.

Lewis, T. J., Scott, T., & Sugai, G. (1994). The problem of behavior: A teacher-based instrument to develop functional hypotheses of problem behavior in general education classrooms. *Diagnostique, 19,* 103-115.

Lichtenstein, J. L. (1997). The essence of empowerment. *Teaching Exceptional Children, 30*(2), 16-19.

Lifshitz, H. (1999). Comparisons of two methods of teaching word-processing skills to persons with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(1), 90-98.

Linan-Thompson, S., & Jean, R. E. (1997). Completing the parent participation puzzle: Accepting diversity. *Teaching Exceptional Children, 30*(2), 46-51.

Linblad, T. (1996). A Saskatchewan Autism Workshop Presentation. Saskatoon, SK.

Logan, K. R., & Malone, D. M. (1998). Instructional contexts for students with moderate, severe, and profound intellectual disabilities in general education elementary classrooms. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(1), 62-75.

Logan, K. R., & Malone, D. M. (1998). Comparing instructional contexts of students with and without severe disabilities in general education classrooms. *Exceptional Children, 64*(3), 343-358.

Logan, K. R., Jacobs, H. A., Gast, D. L., Streu Murray, A., Daino, K., & Skala, C. (1998). The impact of typical peers on the perceived happiness of students with profound multiple disabilites. *The Journal of the Association for Persons with Severe Handicaps, 23*(4), 309-318.

Lohrmann-O'Rourke, S., & Browder, D. M. (1998). Empirically based methods to assess the preferences of individuals with severe disabilities. *American Journal on Mental Retardation, 103*(2), 146-161.

Lolli, D., & Sauerburger, D. (1997). Learners with visual and hearing impairments. In B. B. Blasch, W. R. Wiener, & R. L. Welsh (Eds.), *Foundations of orientation and mobility* (pp. 513-529). New York, NY: A F B Press.

Luckner, J. L. (1996). Juggling roles and making changes: Suggestions for meeting the challenges of being a special educator. *Teaching Exceptional Children, 28*(2), 44-49.

Lueck, A. H. (1999). Setting curricular priorities for students with visual impairments. *RE:view, 31*(2), 54-66.

Lyon, C. S., & Lagarde, R. (1997). Tokens for success: Using the graduated reinforcement system. *Teaching Exceptional Children, 29*(6), 52-57.

MacArthur, C. A. (1998). From illegible to understandable: How word recognition and speech synthesis can help. *Teaching Exceptional Children, 30(6)*, 60-65.

Macfarlane, C. E. (1998). Assessment: The key to appropriate curriculum and instruction. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 35-60). Austin, TX: PRO-ED, Inc.

Macfarlane, C. E. (1998). Data-based measurement and evaluation. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 239-254). Austin, TX: PRO-ED, Inc.

Malian, I. D. & Love, L. L. (1998). Leaving high school: An ongoing transition study. *Teaching Exceptional Children, 30*(3), 4-10.

Mannix, D. (1992). *Life skills activities for special children.* West Nyack, NY: The Center for Applied Research in Education.

Mannix, D. (1993). *Social skill activities for special children.* West Nyack, NY: The Center for Applied Research in Education.

Mar, H. H., & Sall, N. (1999). Profiles of the expressive communication skills of children and adolescents with severe cognitive disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(1), 77-89.

Margalit, M. (1995). Effects of social skills training for students with an intellectual disability. *International Journal of Disability, Development and Education, 42*(1), 75-85.

Marks, S. U., Schrader, C., & Levine, L. (1999). Paraeducator experiences in inclusive settings: Helping, hovering, or holding their own? *Exceptional Children, 65*(3), 315-329.

McCabe, M. P., & Cummins, R. A. (1996). The sexual knowledge, experience, feelings and needs of people with mild intellectual disability. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(1), 13-21.

McCarthy, H., & Chalmers, L. (1997). Bibliotherapy: Intervention and prevention. *Teaching Exceptional Children, 29*(6), 12-13.

McLeod, R. (1999) *School to life transition handbook: Five steps to successful transition.* Saskatoon, SK: Saskatchewan Association for Community Living.

McConnell Fad, K., Patton, J. R., & Polloway, E. A. (2000). *Behavioral intervention planning: Completing a functional behavioural assessment and developing a behavioural intervention plan* (revised ed.). Austin, TX: PRO-ED, Inc.

McConnell, J. (1998). Instruction for students with severe disabilities in general education settings. *Education and Training in Mental Retardation and Developmental Disabilities, 33*(3), 199-215.

McDonnell, A. P. (1996). The acquisition, transfer, and generalization of request by young children with severe disabilities. *Education and Training in Mental Retardation and Developmental Disabilities 31*(3), 213-234.

McDougal, D. (1998). Research on self-management techniques used by students with disabilities in general education settings: A descriptive review. *Remedial and Special Education, 19*(5), 310-320.

McGinnis, E., & Goldstein, P. A. (1990). *Skillstreaming in early childhood.* Champaign, IL: Research Press.

McMahon, C. M., Wacker, D. P., Sasso, G. M., & Newton, S. M. (1996). Analysis of frequency and type of interactions in a peer-mediated social skills intervention: Instructional vs social interactions. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(4), 339-353.

McPhee, N. H., Favazza, P. C., & Lewis, G. E. (1998). *Sensitivity and awareness: A guide for developing understanding.* Hollidaysburg, PA: Jason and Nordic Publishers.

Mechling, L. C., & Gast, D. L. (1997). Combination audio/visual self-prompting system for teaching chained tasks to students with intellectual disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 138-153.

Melberg Schwier, K., & Hingsburger, D. (2000). *Sexuality: Your sons and daughters with intellectual disabilites.* Baltimore: Paul H. Brookes Publishing Co.

Mercer, C. D., Lane, H. B., Jordan, L., Allsop, D. H., & Eisele, M. R. (1996). Empowering teachers and students with instructional choices in inclusive settings. *Remedial and Special Education, 17*(4), 226-236.

Miller, M. D., Brownell, M. T., & Smith, S. W. (1999). Factors that predict teachers staying in, leaving, or transferring from the special education classroom. *Exceptional Children, 65*(2), 201-218.

Miner, C. A., & Bates, P. E. (1997). The effect of person centered planning activities on the IEP/transition planning process. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 105-112.

Modell, S. J., & Cox, T. A. (1999). Let's get fit. *Teaching Exceptional Children, 31*(3), 24-29.

Morse, M. T. (1999). Cortical visual impairment: Some words of caution. *RE:view, 31*(1), 21-26.

Munk, D., Laarhoven, T., Goodman, S., & Repp, A. (1998). Small group direct instruction for students with developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 127-138). Austin, TX: PRO-ED, Inc.

Napier, E. (1995). *Integrating students with special needs: Effective strategies to provide the most enabling education for all students.* Vancouver, BC: EduServ.

National Crisis Prevention Institute. (1987). *Nonviolent crisis intervention.* Brookfield, WI: National Crisis Prevention Institute.

Nelson, J. R., & Crabtree, M. (1998). Teaching good behaviour in the whole school. *Teaching Exceptional Children, 30*(4), 4-9.

Nevin, A. (1998). Curricular and instructional adaptations for including students with disabilities in cooperative groups. In J. W. Putnam (Ed.), *Cooperative learning and strategies for inclusion* (pp. 49-66). Baltimore: Paul H. Brookes Publishing Co.

Nielson, L. B. (1997). *The exceptional child in the regular classroom: An educator's guide.* Thousand Oaks, CA: Corwin Press, Inc.

Notari-Syverson, A. R., Cole, K., Osborn, J. L., & Shervyood, D. (1996). What is this? What did we just do? How did you do that? Teaching cognitive and social strategies to young children with disabilities in integrated settings. *Teaching Exceptional Children, 28*(2), 12-17.

O'Shea, D. J., & O'Shea, L. J. (1998). Learning to include. *Teaching Exceptional Children, 31*(1), 40-49.

Oelwein, P. L. (1995). *Teaching reading to children with down syndrome: A guide for parents.* Bethesda, MD: Woodbine House, Inc.

Orelove, F. P., & Sobsey, D. (1996). *Educating children with multiple disabilities: A transdisciplinary approach* (3rd ed.). Baltimore: Paul H. Brookes Publishing Co.

Owens-Johnson, L., & Johnson, J. (1999). The local employer survey project. *Teaching Exceptional Children, 31*(5), 18-25.

Palmer, D. S., Borthwick-Duffy, S. A., & Widaman, K. (1998). Parent perception of inclusive practices for their children with significant cognitive disabilities. *Exceptional Children, 64*(2), 271-282.

Parette, H., & Brotherson, M. J. (1996). Family participation in assistive technology assessment for young children with mental retardation and developmental disabilities. *Education and Training in Mental Retardation and Developmenta Disabilities, 31*(1), 29-43.

Parette, H. (1997). Assistive technology devices and services. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(4), 267-280.

Parette, H. (1998). Assistive technology: Effective practices for children with mental retardation and developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 205-224). Austin, TX: PRO-ED, Inc.

Parker, D. (1997). *Jamie: A literacy story*. York, ME: Stenhouse Publishers.

Parsons, M. B., Reid, D. H., & Green, C. W. (1998). Identifying work preferences prior to supported work for an individual with multiple severe disabilities including deaf blindness. *The Journal of the Association for Persons with Severe Handicaps, 23*(4), 329-333.

Patton, J. R., Cronin, M. E., & Jairrels, V. (1997). Curricular implications of transition: Life skills instruction as as integral part of transition education. *Remedial and Special Education, 18*(5), 294-306.

Patton, P. L., de la Garza, B., & Harmon, C. (1997). Employability skills + adult agency support + family support = successful employment. *Teaching Exceptional Children, 29*(3), 4-11.

Payne, D. (1996). Drama and deaf children. In A. Kempe (Ed.), *Drama education and special needs* (pp. 175-210). Cheltenham, UK: Stanley Thornes Publishers Ltd.

Pearpoint, J., O'Brien, J., & Forest, M. (1993). *PATH*. Toronto, ON: Inclusion Press.

Pearson, S. (1996). Child abuse among children with disabilities: Implications for special educators. *Teaching Exceptional Children, 29*(1), 34-37.

Perner, D. E., & Porter, G. L. (1998). Creating inclusive schools: Changing roles and strategies. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 317-330). Austin, TX: PRO-ED, Inc.

Perry, L. A. (1997). Using wordless picture books with beginning readers (of any age). *Teaching Exceptional Children, 29*(3), 68-70.

Pickett, A., & Gerlach, K. (1998). The roles and responsibilites of paraeducators who serve students with developmental disabilites. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 309-316). Austin, TX: PRO-ED, Inc.

Pierce K., & Schreiban, L. (1997). Using peer trainers to promote social behaviour in autism: Are they effective at enhancing multiple social modalities? *Focus on Autism and Other Developmental Abilities, 12* (4) 207-218.

Pogrund, R., Healy, G., Jones, K., Levack, N., Martin-Curry, S., Martinez, C., Marz, J., Roberson-Smith, B., & Vrba, A. (1993). *Teaching age-appropriate purposeful skills (TAPS): An orientation and mobility curriculum for students with visual impairments*. Austin, TX: Texas School for the Blind and Visually Impaired.

Polloway, E. A., Smith, J. D., Patton, J. R., & Smith, T. E. C. (1996). Historic changes in mental retardation and developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(1), 3-12.

Pomplun, M. (1997). When students with disabilities participate in cooperative groups. *Exceptional Children, 64*(1), 49-58.

Porter, G., & Stone, J. (1998). The inclusive school model: A framework and key strategies for success. In J. W. Putnam (Ed.), *Cooperative learning and strategies for inclusion* (pp. 229-248). Baltimore: Paul H. Brookes Publishing Co.

Powers, L. E., & Sowers, J. (1994). Transitions to adult living: Promoting natural supports and self-determination. In S. N. Calculator & C. M. Jorgensen (Eds.), *Including students with severe disabilities in schools: Fostering communication, interaction and participation* (pp. 215-248). San Diego, CA: Singular Publishing.

Prater, M. A., & Bruhl, S. (1998). Acquiring social skills through cooperative learning and teacher-directed instruction. *Remedial and Special Education, 19*(3), 160-172

Pratt, B. (1999). Making it work: Using technology in a classroom for young children with multiple disabilities. *Learning and Leading with Technology, 26*(8), 28-31.

Prom, M. (1999). Measuring perceptions about inclusion. *Teaching Exceptional Children, 31*(5), 38-42.

Pumpian, I. (1999). Teacher preparation: A long and winding road that leads... In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 157-170). Baltimore: Paul H. Brookes Publishing Co.

Putnam, J. W. (1998). The process of cooperative learning. In J. W. Putnam (Ed.), *Cooperative learning and strategies for inclusion* (pp. 17-48). Baltimore: Paul H. Brookes Publishing Co.

Putnam, J. W. (1998). *Cooperative learning and strategies for inclusion: Celebrating diversity in the classroom*. Baltimore: Paul H. Brookes Publishing Co.

Quill, K. (1995). *Teaching children with autism: Strategies to enhance communication and socialization*. New York, NY: Delmar Publishers.

Quinn, D. (Personal Communication, September 15, 1999).

Rainforth, B., & York-Barr, J. (1997). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services* (2nd ed.). Baltimore: Paul H. Brookes Publishing Co.

Rawlings, M., Dowse, L., & Shaddock, A. (1995). Increasing the involvement of people with an intellectual disability in choice making situations: A practical approach. *International Journal of Disability, Development and Education, 42*(2), 137-153.

Reddy, S. S., Utley, C. A., Delquadri, J. C., Mortweet, S. L., Greenwood, C. R., & Bowman, V. (1999). Peer tutoring for health and safety. *Teaching Exceptional Children, 31*(3), 44-53.

Reisberg, L. (1998). Facilitating inclusion with integrated curriculum: A multidisciplinary approach. *Intervention in School and Clinic, 33*(5), 272-277.

Remington, B. (1996). Assessing the occurrence of learning in children with profound intellectual disability: A conditioning approach. *International Journal of Disability Development, 43*(2), 101-118.

Riches, V. (1996). *Everyday social interaction: A program for people with disabilities.* Baltimore: Paul H. Brookes Publishing Co.

Ringlaben, R., & Dahmen-Jones, D. (1998). Attitudes about individuals with developmental disabilites. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 295-306). Austin, TX: PRO-ED, Inc.

Roach, V. (1999). Reflecting on the least restrictive environment policy: Curriculum, instruction, placement: Three legs of the achievement stool. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 145-156). Baltimore: Paul H. Brookes Publishing Co.

Robertson, G., Haines, L. P., Sanche, R., & Biffart, W. (1997). Positive change through computer networking. *Teaching Exceptional Children, 29*(6), 22-31.

Romer, L. T., White, J., & Haring, N. G. (1996). The effects of peer mediated social competency training in the type and frequency of social contacts with student with deaf-blindness. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(4), 324-338.

Rosen, S. (1997). Learners with visual and physical impairments. In B. B. Blasch, W. R. Wiener, & R. L. Welsh (Eds.), *Foundations of orientation and mobility* (pp. 456-482). New York, NY: A F B Press.

Rosenthal-Malek, A. (1998). Assessment for instruction of students with developmental disabilities. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 61-72). Austin, TX: PRO-ED, Inc.

Rosenthal-Malek, A. (1998). Development of friendships and social competence. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 107-116). Austin, TX: PRO-ED, Inc.

Rutherford, R. B., & Nelson, C. M. (1998). Management of aggressive and violent behavior in schools. In E. L. Meyen, G. A. Vergason, & R. J. Whelan (Eds.), *Educating students with mild disabilities: Strategies and methods* (pp. 71-92). Denver, CO: Love Publishing Co.

Ryan, S., & Paterna, L. (1997). Junior high can be inclusive: Using natural supports and cooperative learning. *Teaching Exceptional Children, 30*(2), 36-41.

Ryndak, D. L. (1996). The curriculum content identification process: Rationale and overview. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 33-60). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L. (1996a). Adapting environments, materials, and instruction to facilitate inclusion. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 97-124). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L. (1996b). Educational teams and collaborative teamwork in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 77-96). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L. (1996c). Natural support networks: Collaborating with family and friends for meaningful education programs in inclusive settings. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 61-76). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L., & Weidler, S. D. (1996). Application to special education curriculum areas with general education parallels. In D. L. Ryndak & S. Alper (Eds.), *Curriculum content for students with moderate and severe disabilities in inclusive settings* (pp. 177-214). Needham Heights, MA: Allyn and Bacon.

Ryndak, D. L., Morrison, A. P., & Sommerstein , L. (1999). Literacy before and after inclusion in general education settings: A case study. *The Journal of the Association for Persons with Severe Handicaps, 24*(1), 5-22.

Safran, S. P., & Safran, J. S. (1996). Is consultation effective? A review of outcome research. *Remedial and Special Education, 17*(6), 341-354.

Sage, D. D. (1997). *Inclusion in secondary schools: Bold initiatives challenging change*. Port Chester, NY: National Professional Resources, Inc.

Saint-Laurent, L., Giasson, J., & Couture, C. (1997). Parents + children + reading activities = emergent literacy. *Teaching Exceptional Children, 30*(2), 52-56.

Salembier, G. B., & Furney, K.S. (1998). Transition from school to adult life. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 113-139). Baltimore: Paul H. Brookes Publishing Co.

Salend, S. J. (1996). Using portfolios to assess student performance. *Teaching Exceptional Children. 28*(2), 36-43.

Salisbury, C. L., Evans, I. M., & Palombaro, M. M. (1997). Collaborative problem-solving to promote the inclusion of young children with significant disabilities in primary grades. *Exceptional Children, 63*(2), 195-210.

Salisbury, C. L., Wilson, L. L., & Palombaro, M. M. (1998). Promoting inclusive schooling practices through practitioner directed inquiry. *The Journal of the Association for Persons with Severe Handicaps, 23*(3), 223-237.

Santos, K. E., & Rettig, M. D. (1999). Going the block. *Teaching Exceptional Children, 31*(3), 54-59.

Santosh, P. J., & Baird, G. (1999). Psychopharmacotherapy in children and adults with intellectual disability. *The Lancet, 354,* 233-242.

Sargent, L. (1991). *Social skills for school and community: Systematic instruction for children and youth with cognitive delays.* Des Moines, IA: Council for Exceptional Children.

Saskatchewan Education. (1989). *Meeting challenging neeeds. A handbook for teachers of students having intensive educational needs.* Regina, SK: Author.

Saskatchewan Education. (1993). *Health education: Wellness 10.* Regina, SK: Author.

Saskatchewan Education. (1996). *Health education: Life transition 20.* Regina, SK: Author.

Saskatchewan Education. (1996). *Health education: Life transition 30.* Regina, SK: Author.

Saskatchewan Education. (1998). *Health education: A curriculum guide for the middle level (grades 6-9).* Regina, SK: Author.

Saskatchewan Professional Development Unit & Saskatchewan Instructional Development and Research Unit (1996). *Diversity in the classroom series. Number seven: Creating an inclusive classroom: Integrating students with special needs.* Saskatoon, SK: Author.

Saskatoon Catholic Schools. (2000). *Teacher Assistant Handbook.* Saskatoon, SK: Author.

Sax, C., Pumpian, I., & Fisher, D. (1999). We didn't always learn what we were taught: Inclusion does work. In D. Fisher, C. Sax, & I. Pumpian (Eds.), *Inclusive high schools: Learning from contemporary classrooms* (pp. 5-26). Baltimore: Paul H. Brookes Publishing Co.

Schattman, R., & Dennis, R. E. (1998). Administration in inclusive schools. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for educating students with disabilities* (pp. 85-112). Baltimore: Paul H. Brookes Publishing Co.

Schlichter, C. L., Larkin, M. J., Casareno, A. B., Ellis, E., Gregg, M., Mayfield, P., & Rountree, B. S. (1997). Partners in enrichment: Preparing teachers for multiple ability classrooms. *Teaching Exceptional Children, 29*(4), 4-9.

Schnorr, R. F. (1997). From enrollment to membership: "Belonging" in middle and high school classes. *The Journal of the Association for Persons with Severe Handicaps, 22*(1), 1-15.

Schumm, J. S., Vaughn, S., & Harris, J. (1997). Pyramid power for collaborative planning. *Teaching Exceptional Children, 29*(6), 62-65.

Scott, B. J., Vitale, M. R., & Masten, W. G. (1998). Implementing instructional adaptations for students with disabilities in inclusive classrooms: A literature review. *Remedial and Special Education, 19*(2), 106-119.

Scotti, J. Nangle, D. E., Masia, C. L., Ellis, J. T., Ujcich, K. J., Giacoletti, A. M., Vittimberga, G. L., & Carr-Nangle, R. (1997). Providing an AIDS education and skills training program to persons with mild developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 113-129.

Seymour, B. (1996). Workshops presented at the 1996 CEC conference, Prince Albert, SK.

Siegel-Causey, E., McMorris, C., McGowen, S., & Sands-Buss, S. (1998). In junior high you take earth science. *Teaching Exceptional Children 31*(1), 66-72.

Sigafoos, J., Penned, D., & Verslus, J. (1996). Naturalistic assessment leading to effective treatment of self-injury in a young boy with multiple disabilities. *Education and treatment of children, 19,* 101-123.

Sikorski, M. F., Niemic, R. P., & Walberg, H. J. (1996). A classroom checkup: Best teaching practices in special education. *Teaching Exceptional Children, 29*(1), 27-29.

Singleton, D. K., Schuster, J. W., Morse, T. E., & Collins, B.C. (1999). A comparison of antecedent prompt and test and simultaneous prompting procedures in teaching grocery words to adolescents with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 34*(2), 182-199.

Siperstein, G. N., Leffert, J. S., & Widaman, K. (1996). Social behavior and the social acceptance and rejection of children with mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(4), 271-281.

Skritic, T. M., Sailor, W., & Gee, K. (1996). Voice, collaboration and inclusion: Democratic themes in educational and social reform initiatives. *Remedial and Special Education, 17*(3), 142-157.

Smith, N., & Levack, N. (1996). *Teaching students with visual and multiple impairments: A resource guide.* Austin, TX: Texas School for the Blind and Visually Impaired.

Smith, S. J., Martin, K. F., & Lloyd, J. W. (1998). Preparing prospective teachers on the web. *Teaching Exceptional Children, 30*(5), 60-64.

Smith, T. E. C. (1998). Developmental disabilities: Definition, description, and directions. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 7-14). Austin, TX: PRO-ED, Inc.

Snow, J. A. (1998). A review of three papers on self-determination. *The Journal of the Association for Persons with Severe Handicaps, 23*(1), 38-40.

Snow, J., & Forest, M. (1987). Circles. In M. Forest (Ed.), *More education integration* (pp. 169-176). Downsview, ON: G. Allan Roeher Institute

Snyder, R. (Personal communication, December 7, 1999).

Sobsey, D., Wells, D., Lucardie, R., & Mansell, S. (1995). *Violence and disability: An annotated bibliogaphy.* Baltimore: Paul H. Brookes Publishing Co.

Soto, G., & Goetz, L. (1998). Self-efficacy beliefs and the education of students with severe disabilities. *The Journal of the Association for Persons with Severe Handicaps, 23*(2), 134-143.

Sowers, J., & Powers, L. E. (1995). Enhancing the participation and independence of students with severe physical and multiple disabilities in performing community activities. *Mental Retardation, 33*(4), 209-220.

Stahl, R. J. (1995). *Cooperative learning in language arts: A handbook for teachers.* Menlo Park, CA: Innovative Learning Publications.

Stainback, S., & Stainback, W. (1996). *Inclusion: A guide for educators.* Baltimore: Paul H. Brookes Publishing Co.

Stainback, W., Stainback, S., & Stefanich, G. (1996). Learning together in inclusive classrooms: What about the curriculum? *Teaching Exceptional Children, 28*(3), 14-19.

Statistics Canada, Centre for Justice Statistics (1994). *Wife assault: The findings of a national survey.*

Steckelberg, A. L., & Vasa, S. F. (1998). How paraeducators learn from the web. *Teaching Exceptional Children, 30*(5), 54-59.

Steckelberg, V. S., & Pickett, A. (1993). *Using paraprofessionals effectively in the classroom.* Bloomington, IN: PhiDelta Kappa Educational Foundation.

Stimpson, L., & Best, M. (1991). *Courage above all: Sexual assault against women with disabilities.* Toronto, ON: DisAbled Women's Network.

Stopka, C., Pomeranz, J., Siders, R., Dykes, M.K., & Goodman, A. (1999). Transition skills for wellness. *Teaching Exceptional Children, 31*(3), 6-11.

Storey, K. (1997). Quality of life issues in social skills assessment of persons with disabilities. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(3), 197-200.

Stuart, J. L., & Goodsitt, J. L. (1996). From hospital to school: How a transition liaison can help. *Teaching Exceptional Children, 28*(2), 58-62.

Taylor, G. R. (1998). *Curriculum strategies for teaching social skills to the disabled: Dealing with inappropriate behaviors.* Springfield, IL: Charles C. Thomas.

Taylor, I., O'Reilly, M., & Lancioni, G. (1996). An evaluation of ongoing consultation model to train teachers to treat challenging behavior. *International Journal of Disability Development, 43*(3), 203-218.

Taylor, R. L., Richards, S. B., Goldstein, P. A., & Schilit, J. (1997). Inclusive environments: Teacher perceptions of inclusive settings. *Teaching Exceptional Children, 29*(3), 50-54.

Test, D. W. & Spooner, F. (1996). *Community-based instructional support.* Washington, DC: American Association on Mental Retardation.

Thoma, C. A. (1999). Supporting student voice in transition planning. *Teaching Exceptional Children, 31*(5), 4-9.

Thousand, J. S., & Villa, R. A. (1995). Managing complex change toward inclusive schooling. In R. A. Villa & J. S. Thousand (Eds.), *Creating an inclusive school* (pp. 51-87). Alexandria, VA: Association for Supervision and Curriculum Development.

Thousand, J. S., Rosenberg, R. L., Bishop, K. D., & Villa, R. A. (1997). The evolution of secondary education. *Remedial and Special Education, 18*(5), 270-284.

Tomlinson, C. A., Callahan, C. M., Tomchin, E. M., Eiss, N., Imbeau, M., & Landrum, M. (1997). Becoming architects of communities of learning: Addressing academic diversity in contemporary classrooms. *Exceptional Children, 63*(2), 269-282.

Trent, S. C., & Artiles, A. J. (1998). Multicultural teacher education in special and bilingual education: Exploring multiple measurement strategies to assess teacher learning. *Remedial and Special Education, 19*(1), 2-6.

Trollinger, G., & Slavkin, R. (1999). Purposeful e-mail as stage 3 technology. *Teaching Exceptional Children, 32*(1), 10-16.

Turner, C., & Seashore Louis, K. (1997). Society's response to differences: A sociological perspective. *Remedial and Special Education, 17*(3), 134-141.

Udvari-Solner, A., & Thousand, J. S. (1995). Promising practices that foster inclusive education. In R. A. Villa & J. S. Thousand (Eds.), *Creating an inclusive school* (pp. 87-109). Alexandria, VA: Association for Supervision and Curriculum Development.

Udvari-Solner, A. (1995). A process for adapting curriculum in inclusive classrooms. In R. A. Villa & J. S. Thousand (Eds.), *Creating an inclusive school* (pp. 110-124). Alexandria, VA: Association for Supervision and Curriculum Development.

Udvari-Solner, A., & Thousand, J.S. (1996). Creating a responsive curriculum for inclusive schools. *Remedial and Special Education, 17*(3), 182-192.

Udvari-Solner, A. (1996). Examining teacher thinking: Constructing a process to design curricular adaptations. *Remedial and Special Education, 17*(4), 245-254.

Udvari-Solner, A. (1998). Adapting the curriculum. In M. Giangreco (Ed.), *Quick-guides to inclusion 2: Ideas for students with disabilities* (pp. 1-28). Baltimore: Paul H. Brookes Publishing Co.

Umbreit, J. (1997). Elimination of problem behavior at work through an assessment-based antecedent intervention. *Education and Training in Mental Retardation and Developmental Disabilities, 32*(2), 129-137.

Van Dyke, D. C., McBrien, D. M., & Sherbondy, A. (1995). Issues of sexuality in Down syndrome. *Down Syndrome Research and Practice, 3*(2), 65-69.

VanDenBerg, J., & Grealish, E. M. (1998). *The wraparound process: Training manual.* Hamilton, ON: Lynwood Hall Child and Family Centre.

Vargo, S. (1998). Consulting teacher-to-teacher. *Teaching Exceptional Children, 30*(3), 54-55.

Vaughn, S., Schumm, J. S., & Arguelles, M. E. (1997). The ABCDEs of co-teaching. *Teaching Exceptional Children, 30*(2), 4-10.

Villa, R. A., & Thousand, J. S. (1995). The rationale for creating inclusive schools. In R. A. Villa & J. S. Thousand (Eds.), *Creating inclusive schools* (pp. 28-50). Alexandria, VA: Association for Supervision and Curriculum Development.

Villa, R. A., Thousand, J. S., Nevin, A., & Malgeir, C. (1996). Installing collaboration for inclusive schooling as a way of doing business in public schools. *Remedial and Special Education, 17*(3), 169-181.

Walcott, D. D. (1997). Education in human sexuality for young people with moderate and severe mental retardation. *Teaching Exceptional Children 29,* (6) pp. 72-74.

Wehmeyer, M. L., Agran, M., & Hughes, C. (1998). *Teaching self-determination to students with disabilities: Basic skills for successful transition.* Baltimore: Paul H. Brookes Publishing Co.

Weigle, K. L. (1997). Positive behavior support as a model for promoting educational inclusion. *The Journal of the Association for Persons with Severe Handicaps, 22*(1), 36-48.

Wenz-Gross, M., & Siperstein, G. N. (1996). The social world of preadolescents with mental retardation: Social support, family environment and adjustment. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(3), 177-187.

Wesson, C. L., & King, R. P. (1996). Portfolio assessment and special education students. *Teaching Exceptional Children, 28*(2), 44-49.

Westling, D. L., & Whitten, T. M. (1996). The reality of best practices in transition: A case study. *Exceptional Children, 62*(4), 319-335.

Westwood, P. (1997). *Commonsense methods for children with special needs.* (3rd ed.). New York, NY: Routledge.

Whalen, C., Schuster, J. W., & Hemmeter, M. L. (1996). The use of unrelated instructive feedback when teaching in small group instructional arrangement. *Education and Training in Mental Retardation and Developmental Disabilities, 31*(3), 188-202.

Wheeler, B. L. (1999). Experiencing pleasure in working with severely disabled children. *The Journal of Music Therapy, 36*(1), 56-80.

Wheeler, J. J. (1998). Reducing challenging behaviours in learners with developmental disabilities through the modification of instructional practices. In A. Hilton & R. Ringlaben (Eds.), *Best and promising practices in developmental disabilities* (pp. 255-262). Austin, TX: PRO-ED, Inc.

Whitehouse, M. A., & McCabe, M. P. (1997). Sex education programs for people with intellectual disability: How effective are they? *Education and Training in Mental Retardation and Developmental Disabilities, 32*(3), 229-240.

Williams, L. J., & Downing, J. E. (1998). Membership and belonging in inclusive classrooms: What do middle school students have to say? *The Journal of the Association for Persons with Severe Handicaps, 23*(2), 98-110.

Wilson, B. A. (1999). Inclusion: Empirical guidelines and unanswered questions. *Education and Training in Mental Retardation and Development Disabilities, 34*(2), 119-133.

York-Barr, J., Kronberg, M. A., and Doyle, M. B. (1996). *Curriculum as everything students learn in school: Creating a classroom community.* In J. York-Barr (Series Ed.), *Creating inclusive school communities: A staff development series for general and special educators.* Baltimore: Paul H. Brookes Publishing Co.

Websites

The following websites maybe of assistance as information sources when programming for students with intellectual or multiple disability:

www.uni.edu/coe/inclusion/index.html

Provides information regarding the *what's?* and *how to's* of inclusive education.

www.thearc.org

A general information website with good advocacy and family related ideas.

www.inclusion.com

General ideas for inclusive education, especially for philosophy and rationale.

www.our-kids.org

Ideas for parents.

www.quasar.ualberta.ca/ddc/inclusion

A Canadian site regarding all aspects of inclusion.

www.cec.sped.org

A Council for Exceptional Children link.

www.saratoga-intl.com/aerobic

The benefits of physical activity.

http://specialed.miningco.com

Resources and general information for special education.

www.closingthegap.com

Technology information.

www.Hood.edu/seri/serihome.html

Special education resources.

www.gallaudet.edu

A website regarding education for students who are deaf or hard-of-hearing.

www.nas.com/downsyn/inclusion.html

General information and resources on inclusive education.

www.familyeducation.com

General information and resources designed to help families play an active role in their children's schooling.

www.familyvillage.wisc.edu/index.htmlx

General information and resources designed to help families play an active role in their children's schooling.

www.bced.gov.bc.ca/specialed/docs

Provides access to the Students With Intellectual Disabilities: A Resource Guide for Teachers document.

http://para.unl.edu

Training resources for paraprofessionals.

www.rarediseases.org/

The home page for the National Organization for Rare Diseases (NORD).

www.netnet.net/mums/

The home page for MUMS, a national parent to parent network.

Appendix A

Role Perception Activities

Role Perception Activity

This instrument is designed to assist the teacher and the paraprofessional in determining areas in which they may have differing perceptions of their respective roles. Both the teacher and the paraeducator should independently examine each particular task listed and determine whether the task is one done by both the teacher and the paraprofessional or is done primarily by either the teacher or the paraprofessional. Indicate your response by circling the corresponding number. If the item does not apply to your situation, leave the item blank. After completing the items, transfer your responses to the score sheet for a comparison response.

	Exclusively Teacher	Primarily Teacher	Shared Respons-ibiiity	Primarily Para-professional	Exclusively Para-professional
1. Evaluating individual lesson plans.					
2. Planning group lesson.					
3. Cleaning up after art lesson.					
4. Getting students ready for activity.					
5. Duplicating materials.					
6. Supervising playground/recreational activities.					
7. Asking parents about child's behaviour at home.					
8. Informing parents of meetings.					
9. Seeing that students stay at the lunch table.					
10. Charting student performance.					
11. Correcting papers.					
12. Constructing instructional materials.					
13. Conducting an individual lesson.					
14. Assessing the value of instructional materials.					
15. Conducting group lessons.					
16. Keeping daily attendance.					
17. Ordering instructional materials.					
18. Selecting field trip sites.					
19. Planning behaviour management strategies.					
20. Handling a conflict with another classroom teacher.					

From *Using Paraeducators Effectively in the Classroom* (pp. 14-15), by S. Vasa, A. Steckelberg and A. Pickett, 1993, Bloomington, IN: PhiDelta Kappa Educational Foundation. Reprinted with permission.

Role Perception Score Sheet

Directions: Following each item, record the number corresponding to both the teacher's and the paraprofessional's response. In the third column, record the value obtained from subtracting the paraprofessional's response from the teacher's response. Record the sign as well as the value of the difference.

	Teacher Response	Para-professional Response	Difference (+ or -)
1. Evaluating individual lesson plans.			
2. Planning group lesson.			
3. Cleaning up after art lesson.			
4. Getting students ready for activity.			
5. Duplicating materials.			
6. Supervising playground/recreational activities.			
7. Asking parents about child's behaviour at home.			
8. Informing parents of meetings.			
9. Seeing that students stay at the lunch table.			
10. Charting student performance.			
11. Correcting papers.			
12. Constructing instructional materials.			
13. Conducting an individual lesson.			
14. Assessing the value of instructional materials.			
15. Conducting group lessons.			
16. Keeping daily attendance.			
17. Ordering instructional materials.			
18. Selecting field trip sites.			
19. Planning behaviour management strategies.			
20. Handling a conflict with another classroom teacher.			

From *Using Paraeducators Effectively in the Classroom* (pp. 14-15),by S. Vasa, A. Steckelberg and A. Pickett, 1993, Bloomington, IN: PhiDelta Kappa Educational Foundation. Reprinted with permission.

Inventory of Paraprofessional Skills and Teacher Needs

Name ______________________________ Date ____________________

Directions: Listed below are a number of tasks which a paraprofessional may perform. If you are a paraprofessional, mark with a "P" those activities/duties which you feel you could conduct. If you are a teacher, mark with a "T" those areas in which you intend to use a paraprofessional.

Instructional Support

1. ________ Reinforce concepts already presented by the teacher, by assisting the students in reading, math, spelling, articulation, vocabulary development, signing, mobility, and/or self-care.
2. ________ Listen to student read.
3. ________ Reading to students.
4. ________ Supervise independent or small group work.
5. ________ Modify written materials (e.g., tape record stories, rewrite to lower level).
6. ________ Help students with work on projects or assignments.
7. ________ Help students select library books.
8. ________ Assist physically disabled students (e.g., feeding, positioning).
9. ________ Help student explore careers and special interests.
10. _______ Practise vocabulary with non-English speaking students.

_________ Other. Please describe.

Behaviour Management

11. _______ Provide and/or supervise earned reinforcement.
12. _______ Supervise time out.
13. _______ Be a resource for students who are experiencing stress.
14. _______ Monitor progress on contracts.
15. _______ Enhance student's self-concept by providing feedback.

_________ Other. Please describe.

Diagnostic Support

16. _______ Correct and grade assigned activities.
17. _______ Observe and record academic behavior and progress (e.g., math facts learned, vocabulary growth, reading rate).
18. _______ Observe and record social behavior(s).
19. _______ Administer informal assessments (e.g., unit tests and criterion-referenced measures).

_________ Other. (Please describe).

Classroom Organization

20. _______ Make instructional games.
21. _______ Develop and manage learning centers.
22. _______ Prepare displays.
23. _______ Locate instructional materials.
24. _______ Assist in daily planning.
25. _______ Make bulletin boards.

_______ Other. Please describe.

Clerical Support

26. _______ Type
27. _______ Duplicate materials
28. _______ Take attendance.
29. _______ Record grades.

_______ Other. Please describe.

From The paraprofessional in special education by R. McKenzie and C. Houk, 1986, *Teaching Exceptional Children, 18(4)*, p. 249. Copyright 1986 by Council for Exceptional Children. Reprinted with permission.

Appendix B

Multi-Action Planning System

(MAPS)

Multi-Action Planning System

The steps to the MAPS process are:

Step 1. Appoint a facilitator

- The facilitator must know and understand the MAPS process. It is not necessary that the facilitator knows the student.
- The facilitator's role is to ask the MAPS questions, keep the meeting moving smoothly and ensure that all attending the meeting have the opportunity to speak. The facilitator's role is to serve as a neutral person.

Step 2. Appoint a recorder

- The recorder need not know the MAPS process well. In fact, the recorder may be a person who is learning the process. It is not necessary that the recorder know the student.
- The recorder's role is to record on the chart paper the thoughts of the people present at the meeting. A separate sheet is used for each question.

Step 3. Arrange for a comfortable meeting place

- The planning meeting should take place in a comfortable place, free from interruptions. It can take place at school, in the parent's home or elsewhere.
- Participants should be told the time limit for the meeting. Usually the initial MAPS process takes 1 1/2 to 2 hours to complete.

Step 4. Beginning the meeting

- Facilitator begins by introducing the participants at the meeting and clarifying their relationship with the student.
- Facilitator outlines what will happen during the meeting, what the outcome(s) will be and the follow-up process.
- In outlining the process the facilitator explains that everyone's ideas are valued. Nonjudgmental acceptance of all ideas is a critical factor in the MAPS process.
- Facilitator asks parent(s) to give brief history of the student.

Step 5. Ask "What is your dream for the future?"

This question is called the dream question and it is vital that it be asked first. It sets the tone for the whole planning process, as it forces the group to look forward to next year or to the time when student is no longer in school. The responses to the question help to set expectations and goals for the future and help the planning team to realize that today is a step in a process, not a final picture.

The recorder writes on the chart paper the responses given by those in attendance.

Step 6. Ask "What is your nightmare?"

Even though this question can be phrased in other ways (e.g., "What don't you want to happen in the future?") it is referred to as the nightmare question. It is important for the question to be asked, as it gets out the underlying fears of the students, teachers and parents. Many teachers who have not had the experience of being responsible for a student with intellectual or multiple disability, need to hear the fears of the parents and the student expressed. This is often the only way to direct the teacher's and therapist's thinking away from the problems at hand and toward planning that will assure that the nightmares do not become the reality. By voicing their fears aloud, parents often are made aware that they too must look forward in order to prevent congregation and segregation from being the only alternative for their children. Responses to the question allow all present to see what could happen if intervention is not functional, organized, and cumulative.

Step 7. Ask "Who is *(the student)*?"

A *snapshot* of the student is presented. Each person at the meeting gets an opportunity to say whatever comes to their mind about the real person the student is. This is not a time for a description of any particular handicap, rather, it is a time for sharing insights and information about the personality and character of the student, a time for describing particular things the student likes to do, or for describing the student's reactions to certain places, events or objects. The facilitator asks that responses be given in one or two words. There are two basic rules; no labelling and no jargon.

This question is a very important stage. It is at this stage that participants develop a global picture of the person they see for only a portion of the day in a particular setting. The responses to the question paint a visual picture of the person and lead the group to the realization that the student is more than just a case.

Responses often reveal that the human characteristics of the student have been lost in the labelling process. Getting a whole picture of the person is often very revealing and very rewarding for all those present.

Step 8. Ask "What are *the student's* strengths gifts/ talents?"

During this time, the participants at the meeting describe those characteristics about the student that stand out in their minds when they think of the person. Particular gifts and talents are usually listed along with personality and character traits that are considered to be positive. It is important to have this information for purposes of planning. The strengths that the student has can be used to address needs. Strengths may differ across situations and settings and the responses may therefore provide a basis for analysis and for cross environment planning.

Step 9. Ask, "What does *the student* need and what do we require to meet these needs?"

The student's needs are described by using the strengths the student has and thinking about the needs that spring from them. For example, if the student can read then opportunities to read, materials, and a good reading program are needed. Also, if reading is a strength, how can it be used to build other necessary skills?

Keeping in mind *the dream,* the list of strengths and needs generate the ideas for actual programming goals and help to generate a list of those people and services that will be accessed in order to carry out the plan. Needs are now based on the strengths and vision of the student and are not based solely on the perceived academic, physical or mental deficits that the student exhibits. It is a good idea to rate the needs of the student in order of priority so that major needs get enough attention and minor needs are not over emphasized.

Step 10. "Ask What is the plan of action? What must we do to avoid the nightmare and make the dream come true?"

Through this type of planning it can be seen how the needs of the student can be addressed, where they will be addressed, and who will be responsible for them. To assist in the programming processes the strengths and needs can be categorized according to the areas of development and other considerations.

Step 11. Summarize the meeting

The facilitator reviews the charts with participants, ensuring that strengths and needs are reflected in the student's day.

The facilitator also describes the process for the next phase of programming. The teachers and specialists will meet to develop objectives that address the goals set at the MAPS meeting, then the individualized program will be written and sent to all participants by a specified date.

Appendix C

Examples of Personal Program Plans

Saskatoon School Division No. 13
Personal Program Plan

Saskatoon
Public
School
Division

SCHOOL YEAR

BACKGROUND INFORMATION

Student Name: ______________________ Student I.D. #: ______________

Male ☐ Female ☐ Date of birth: ______________

Parent/Guardian: ______________________ Telephone Number: ______________

Address: ______________________ Postal Code: ______________

______________________ Teacher(s): ______________

______________________ Case Manager ______________

______________________ (as identified by the team)

Grade/Classroom Placement: ______________________

Agency Involvement: ______________________

Program Planning Team: ______________________

- ☐ classroom teacher(s)
- ☐ case manager
- ☐ administrator
- ☐ parent/guardian
- ☐ student (if appropriate)
- ☐ support personnel
- • ______________
- • ______________

Learner Profile
(Comment on appropriate categories)

Medical Information	Interests
Areas of Need	Strengths

GENERAL PROGRAM SUPPORTS

(Check those supports which are currently in place and specify information)

☐ program placement ____________________

☐ resource/itinerant teacher support (name/s) ____________________

☐ teacher associate support: (individual/s) hrs/day ____________________

☐ specialized equipment ____________________

☐ transportation ____________________

☐ other supports (e.g., SLP, counsellor, etc.) ____________________

SPECIFIC PROGRAM GOALS

(Identify objectives under each appropriate skill area. Indicate n/a if no adaptations are necessary in an area)

1. Social Skills (i.e. attitudes, handling emotions, relationships, etc.)

Objectives	Strategies/Resources	Progress/Date

2. Communication (i.e. receptive and expressive, speech or alternative, etc.)

Objectives	Strategies/Resources	Progress/Date

3. Personal Management (i.e. grooming, dressing, independence in transportation, etc.)

Objectives	Strategies/Resources	Progress/Date

4. Academics

Objectives	Strategies/Resources	Progress/Date

5. Leisure/Recreation (i.e. free time, lunch, recess, etc.)

Objectives	Strategies/Resources	Progress/Date

6. Vocational/Work (i.e. work habits such as getting started, working continuously, asking for help, etc.)

Objectives	Strategies/Resources	Progress/Date

7. Motor Development (i.e. fine or gross)

Objectives	Strategies/Resources	Progress/Date

8. Other (i.e. sensory development, Braille skills, anger management, technology)

Objectives	Strategies/Resources	Progress/Date

RECOMMENDATIONS/TRANSITION PLANS	
Date	

RECOMMENDATIONS/TRANSITION PLANS

	FALL		SPRING		JUNE	
	Signature	Date	Signature	Date	Signature	Date
Parent/Guardian						
Teacher(s)						

From Saskatoon School Division No. 13 (2001). Reprinted with permission.

© This material may not be copied or reproduced in whole or in part, in any form, without the express written consent of the Saskatoon Public School Division 2001.

Saskatchewan Rivers School Division No. 119
Personal Program Plan - Overview

Name: ______________________________ **D.O.B.:** ______________________

Parents/Guardians: ________________________ **Home Phone:** __________________

School: ______________________________ **Work Phone:** __________________

Date: ______________________________

Areas of Need:

☐ Language Arts (Reading, Spelling, Wr. Prod.)
☐ Math
☐ Social Studies
☐ Science
☐ Social/Behavioural
☐ Expressive-Receptive Language
☐ Organizational

Focus of Program:

☐ In-class adaptations/modifications
☐ Inclusion (with Resource Room support)
☐ Individualized programs
☐ Pull-out Resource Room Support

Support Services or Assessments:

☐ Resource Room Assessments
☐ Resource Room Assistance - Number of minutes per 6 day cycle __________
☐ Program Consulting: ____________________ , ______________________
☐ Speech and Language Assessment/Assistance: yr. __________
☐ Psychological Assessment/Assistance: yr. ____________
☐ Occupational/Physical Therapy
☐ Social Worker/Health Services
☐ Kinsmen Children's Centre
☐ Royal University Hospital
☐ Other: __________________ , ________________________

Physical Limitations that Require Adaptations:

☐ Vision
☐ Hearing
☐ Motor
☐ Health
☐ Other ____

Student: ______________________________

Grade: ______________________________

Area of Exceptionality: ______________________________

Completed by: ______________________________

Date: ______________________________

List approximate instructional functioning grade levels:

Woodcock Johnson Revised: Yr. ________

Reading ________ Written Language ________ Social ________ (Assessment ________)

Spelling ________ Math ________ Behavioural ________ (Assessment ________)

Check the student's preferred LEARNING STYLE(S):

☐ visual ☐ auditory

☐ tactile ☐ kinaesthetic (whole body involvement)

Check any statements that apply to the student's work habits in the regular classroom:

- ☐ works independently
- ☐ distracted by sounds, talking, etc.
- ☐ should be seated: ☐ in front of room ☐ in back of room
  - ☐ away from window ☐ near a window
  - ☐ near friends ☐ away from friends
  - ☐ near teacher ☐ away from teacher
- ☐ is motivated to work
- ☐ initiates tasks or begins directions easily
- ☐ does homework
- ☐ gives up easily
- ☐ usually completes tasks started
- ☐ is usually on time to class
- ☐ usually brings needed material to class
- ☐ usually remembers assignments, homework, instructions, etc.
- ☐ needs help with organization
- ☐ works best within a structured classroom routine
- ☐ best instructional environment: ______________________________

____

Which of the following instructional adaptations/modifications have proven successful with this student? (check all that apply)

- ☐ extended time
- ☐ highlighted texts or reading material
- ☐ content vocabulary preview or reinforcement
- ☐ partial assignments
- ☐ alternative assignments/projects

☐ taped texts or reading materials
☐ use of computer
☐ use of calculator
☐ grading modifications
☐ assignment/homework reminders
☐ visual aides
☐ changes in lesson objective/outcome
☐ material modifications
☐ puzzles-guided notes/outlines
☐ advance organizers
☐ alternate materials
☐ in-class assistance from special services
☐ taped responses
☐ homework book
☐ photocopied notes
☐ other ____

____

____

Which adaptations, modifications, or activities have not proven successful in the past?
Label each of the following as: + strength 0 weakness

☐ copying from the board
☐ copying from overhead
☐ gaining information from printed materials
☐ gaining information from charts, graphs, pictures, etc.
☐ gaining information from lecture
☐ gaining information from film/filmstrip/audiotape
☐ gaining information from a field trip
☐ oral expression and communication skills
☐ organizing and maintaining a notebook
☐ creative projects
☐ writing (journal, reports, creative, etc.)
☐ spelling
☐ math facts
☐ reading out loud
☐ class discussions
☐ hands-on tasks
☐ computer work
☐ parent involvement/support

Check any behaviour management considerations for this student.

- ☐ Time out in class
- ☐ Time out working out of the class
- ☐ Communication book with home
- ☐ Immediate and consistent consequences
- ☐ Detention
- ☐ Earned privileges
- ☐ Peer mediation
- ☐ Debriefing
- ☐ Behaviour monitoring
- ☐ Other ______________________________

Broad Goals:

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________

Special Education Teacher	Classroom Teacher	Principal

Student (if appropriate)	Parent

Personal Program Plan ____/____

Special Education Teacher: ____________________ **Student:** ____________________

Time or Date M D	Area	Person Responsible	Methodology/Materials/Adaptations

Specific Objectives	Evaluation/Comments

From Saskatchewan Rivers S.S. No. 119, Prince Albert, SK: Reprinted with permission.

Turtleford School Division No. 65
Individualized Education Plan

I. Student Information

Date:	Term:
Student's Name:	School:
Date of Birth:	Grade:
Chronological Age:	Classroom Teacher:
Parent(s)/Guardian:	Principal:
Phone:	Primary Language:

II. Background Information

(Provide a brief integrated summary of data from all sources. The summary should include nature of the disability, pertinent information about the students strengths and weaknesses, unique patterns of functioning, and implications of the problem areas on students total functioning.)

III. Designation Status

☐ DDPF ☐ Level 1 or ☐ Level 2

☐ SNPF ☐ Priority 1 or ☐ Priority 2

IV. Present Level of Support

☐ Regular class with pull-out support: TIME: ______________

☐ In-class support: TIME: ______________

☐ Consultation and Programming

☐ Ancillary Services:

☐ Teacher Assistant	☐ Occupational Therapist	☐ Speech-Language
☐ Physical Therapist	☐ Educational Psychologist	☐ Social Worker
☐ Counsellor	☐ Other	

V. Medical Concerns (if applicable)

☐ N/A

Date	Findings

VI. Record of Resource Room Support

School	Grade	Year/Months

VII. Program Description

Description of Special Education Program

Areas of Intervention	Periods/Cycle

Description of Program

Key
R = Regular
M = Modified
A = Alternate
FI = Functionally Integrated

Subject	Teacher	Type of Programming (see key)	Accommodation Required*
Language Arts			☐ Yes ☐ No
Mathematics			☐ Yes ☐ No
Social Studies			☐ Yes ☐ No
Science			☐ Yes ☐ No
Physical Education			☐ Yes ☐ No
Fine Arts			☐ Yes ☐ No
Health/Wellness			☐ Yes ☐ No
Industrial Arts			☐ Yes ☐ No
Home Economics			☐ Yes ☐ No
Info. Processing			☐ Yes ☐ No
Other			☐ Yes ☐ No
*IF "**YES**" SEE ATTACHED			☐ Yes ☐ No

VIII. Goals and Objectives

Goal: **Goal #_____**

of _____ goals

Description of Present Level of Performance:
(Include standardized test results in Language Arts and Mathematics)

Short Term Objectives:

Objective 1:

Date Started: Date Achieved:

Progress:

Objective 2:

Date Started: Date Achieved:

Progress:

Objective 3:

Date Started: Date Achieved:

Progress:

This goal of the student's IEP:

( ) Has been achieved.

( ) Meets student's current needs and will be continued.

( ) Requires significant changes and modification to meet current needs. See attached sheet for revision.

IX. Description of Specific Programs, Methods & Materials Used

(List specific materials used: e.g., Visualization - Verbalization - Objectives; Empowered Beginnings; RAPS Strategy.)

X. Comments:

Resource Room Teacher

Administrator

Classroom Teacher

Parent(s)

(Note: Signature indicates parent agrees with the IEP and is clear about the process)

From Turtleford S.D. No.65, Turtleford, SK. Reprinted with permission.

Saskatoon Catholic Board of Education
Personal Program Plan for Designated Students - Elementary Level

Student's Name ______________________ Date ______________________

School ______________________ Grade Placement ______________________

Date of Birth ______________ Present Age _____ Classroom Teacher ______________________

Parent/Guardian ______________________ Learning Assistance Teacher ______________________

Address ______________________ Teacher Assistant(s) ______________________

Phone (Home) __________ Phone (Work) ________ Other Team Members ______________________

Schools Attended ____

Strengths	Areas for Growth
Interests	**Significant Factors**

Assessment Data

Alvin Buckwold Child Development Yes _____ No _____ Requested ____________ Date ________

Educational Psychologist Yes _____ No _____ Requested ____________ Date ________

Speech and Language Yes _____ No _____ Requested ____________ Date ________

Occupational Therapist Yes _____ No _____ Requested ____________ Date ________

Physical Therapist Yes _____ No _____ Requested ____________ Date ________

Medical Yes _____ No _____ Requested ____________ Date ________

Other ____

Technical Aids ____

Program Planning Meeting ____

Parent's Signature ____

Long Term Goals

Academic
Cognitive
Communication
Social
Work Habits
Leisure
Faith
Personal Management
Orientation and Mobility (VI) Visual Efficiency (VI)

Short Term Goals	Strategies/Resources/Activities	Progress

From St. Paul's R.C.S.S.D. No. 20, Saskatoon, SK. Reprinted with permission.

Saskatoon Catholic Schools

School ____________________

Report to the Parents of ____________________

Grade ____________________ Date ____________________

Class:	**Reporting Period:**					
Teacher:	**Teacher Associate:**					
Goals:	1. Successful Independently 2. Successful Inconsistently 3. Successful with Assistance 4. Emerging Skill 5. Not Achieved	**Evaluation**				
Academic						
Communication						
Personal Management						
Job Performance						
Social						
Leisure						

From St. Paul's R.C.S.S.D. No. 20, Saskatoon, SK. Reprinted with permission.

Saskatoon Catholic Schools

Personal Program Plan For Students with Learning Difficulties

Personal Information

Student:	**Homeroom Teacher:**	**Parent(s):**
Birthday:	**Principal:**	**Address:**
Grade:	**Resource Teacher:**	**Phone:**

Assessment Results - Achievement

CAT2 - results in percentile	**W.J. Reading**	**D.A.B.**	**W.J. Achievement Revised**	**Key Math**
Ranks:	Date:	Date:	Date:	Date:
Date:	Grade Placement	Grade Placement	Grade Placement	Grade Placement
Grade Placement	Word Identif.	Total Listening	Passage comp.	Basic Concepts
Total Reading	Word Attack	Total Speaking	Calculation	Operations
Spelling	Word Comp.	Total Reading	Applied Prob.	Application
Total Lang.	Passage Comp.	Total Writing	Writing Samples	
Study Skills	Total Reading	Total Math	Reading Vocab.	
Math		Spoken Lang.	Quantitative Concepts	
Total		Written Lang.	Spelling	

Assessment Results - Cognitive

C-CAT - results in standard age	**WISC - III**		
Scores	Date:		
Date:	Grade Placement:		
Grade Placement:	Verbal		
Verbal:	Performance:		
Quantitative:	Full Scale:		
Nonverbal:			

Resource Instruction

☐ In-Class Support	☐ Pull-Out Individual	☐ Pull-Out Small Group

Classroom Instruction

Language Arts	☐ Regular	☐ Adapted	☐ Modified	☐ Alternate
Math	☐ Regular	☐ Adapted	☐ Modified	☐ Alternate

Program Outline

Process of instruction:

Ongoing collaboration with classroom teachers will occur to ensure that:

- instruction in the resource setting is directly related to the objectives and instruction taking place in the student's classroom.
- instruction in the resource setting focuses on building upon skills that will allow the student to experience greater success with classroom learning.
- instruction in the resource setting coincides with classroom teaching (helps make activities relevant; increases success when transferring skills from isolation to classroom activities).
- appropriate adaptations are made for students in the classroom (to increase student success).
- subject objectives are identified, for the purpose of pre-teaching and post-teaching.

Scheduled time:

Instruction:

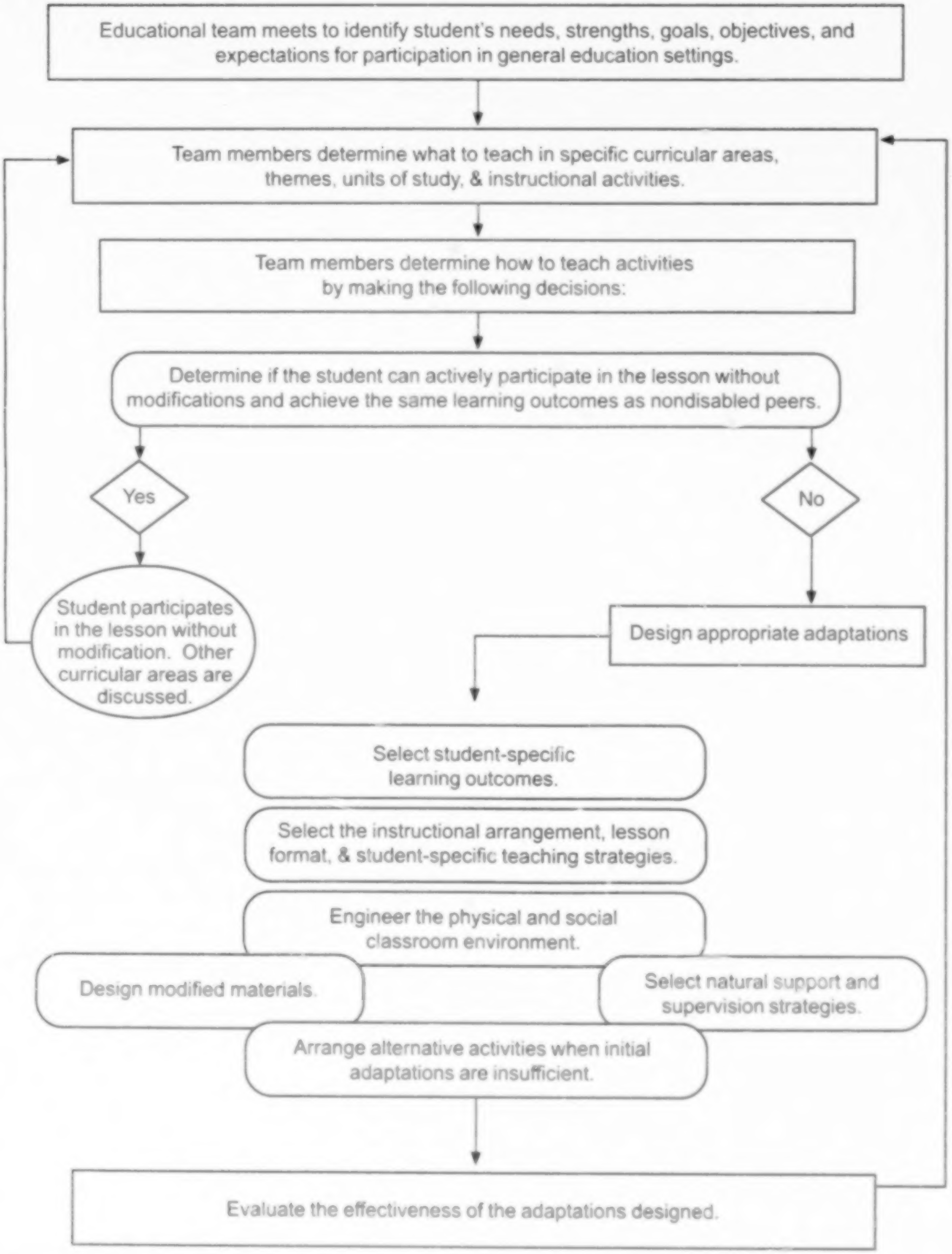
Short Term Goals/Objectives	Person Responsible	Materials & Methods	Evaluation/Outcome	Date

From St. Paul's R.C.S.S.D. No. 20, Saskatoon, SK. Reprinted with permission.

Appendix D

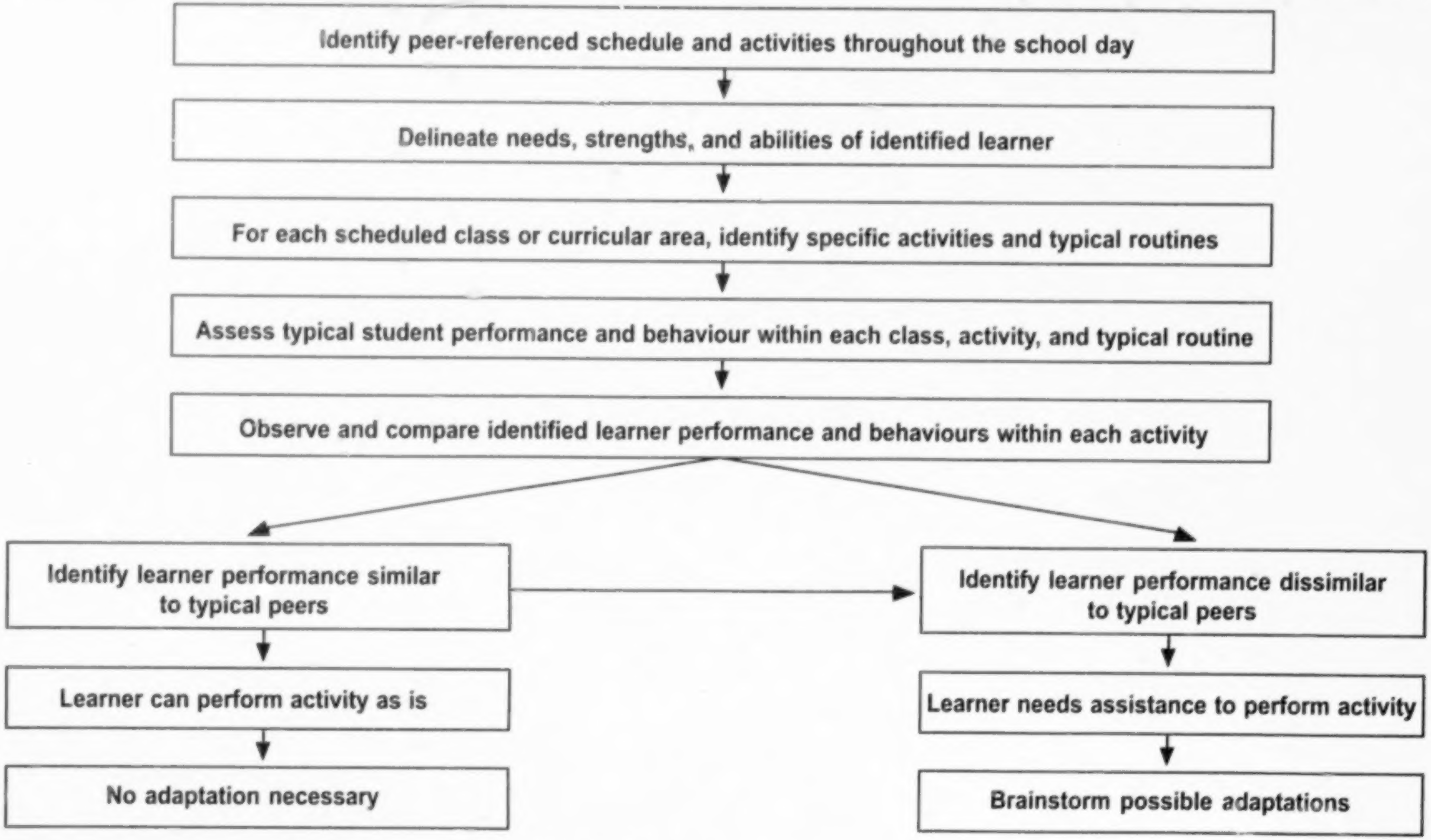
Hierarchies for Deciding Classroom Participation and Adaptations

A Curricular Adaptation Decision-making Process


Educational team meets to identify student's needs, strengths, goals, objectives, and expectations for participation in general education settings.
Team members determine what to teach in specific curricular areas, themes, units of study, & instructional activities.
Team members determine how to teach activities by making the following decisions:
Determine if the student can actively participate in the lesson without modifications and achieve the same learning outcomes as nondisabled peers.
Yes
No
Student participates in the lesson without modification. Other curricular areas are discussed.
Design appropriate adaptations
Select student-specific learning outcomes.
Select the instructional arrangement, lesson format, & student-specific teaching strategies.
Engineer the physical and social classroom environment.
Design modified materials.
Select natural support and supervision strategies.
Arrange alternative activities when initial adaptations are insufficient.
Evaluate the effectiveness of the adaptations designed.

From Examining Teacher Thinking: Constructing a Process to Design Curricular Adaptations, by A. Udvari-Solner, 1996, *Remedial and Special Education, 17*(4), p. 247. Copyright 1996 by PRO-ED, Inc. Reprinted with permission.

DECISION-MAKING FRAMEWORK FOR USING ADAPTATIONS


Identify peer-referenced schedule and activities throughout the school day
Delineate needs, strengths, and abilities of identified learner
For each scheduled class or curricular area, identify specific activities and typical routines
Assess typical student performance and behaviour within each class, activity, and typical routine
Observe and compare identified learner performance and behaviours within each activity
Identify learner performance similar to typical peers
Learner can perform activity as is
No adaptation necessary
Identify learner performance dissimilar to typical peers
Learner needs assistance to perform activity
Brainstorm possible adaptations

From *Curricular Adaptations* (p. 8), by R. Kronberg and J. Filbin, 1993, Denver, CO: Colorado Department of Education. Reprinted with permission.

Appendix E

Organizational Schemes for Adaptations

Curriculum Modification Workplan

Student ____________ Age ______ Grade ________ School ______________

Likes ______________________________

Dislikes ______________________________

Strengths/Abilities ______________________________

Goals/Expectations ______________________________

Class/Subject Area ______________________

What is the class doing?	What is the student doing?	What goals are being met?	What supports are needed?
1			
2			
3			
4			
5			

Ways to Modify Typical Daily Routines

Goal ______________________

Daily Routines ______________________

Goal ______________________

Daily Routines ______________________

From St. Paul's R.C.S.S.D. No. 20, Saskatoon, SK. Reprinted with permission.

Curriculum Modification Workplan

Student ______________________ Age ________ Grade ________ School ______________________

Class/Subject Area: ______________________

Class Activity	Student's Participation in Activity	Supports Needed

Notes: ______________________

From St. Paul's R.C.S.S.D. No. 20, Saskatoon, SK. Reprinted with permission.

Support Plan Worksheet

Planning Student-Specific Support

Student: ____________ Grade: ____ Class/Routine: ____________ Date: ________

Team members: ______________________________

Goal: ______________________________

	Support Options	Specifics/How	Follow-Up Who? What? When?
Instructional	☐ No instructional support needed ☐ Student outcomes ☐ Instructional arrangement ☐ Materials ☐ Time ☐ Quantity ☐ Mode of presentation ☐ Instructional prompts ☐ Natural models and cues ☐ Alternative assessments ☐ Other:		
People	☐ No people support needed ☐ Adults ☐ Parents ☐ General educators ☐ Special educators ☐ Paraprofessionals ☐ Volunteers ☐ Other: ☐ Peers ☐ Friends ☐ Classmates ☐ Same-age tutors ☐ Cross-age tutors ☐ Others: ☐ Student		

From *Creating Inclusive School Communities: A staff development series for general and special education. Module 5: Collaboration: Providing Support in the Classroom*, (p. 5/30b), by M. B. Doyle, J. York-Barr and R. M. Kronberg, 1996, Baltimore: Paul H. Brookes Publishing. Reprinted with permission.

Inclusive PPP Adaptation Checklist

Student ________________________ D.O.B. __________ Date __________

Completed by ____________________

The following adaptations are appropriate and necessary for this student. Check all that apply.
(See student's "Program-at-a-glance" for more information.)

Pacing

____ Extend time requirements ____ Allow breaks
____ Vary activity often
____ Omit assignments requiring coping timed situation
____ School texts sent home for summer preview
____ Home set of texts/materials for preview/review
____ other ______________________

Environment

____ Preferential seating
____ Planned seating ____ Bus ____ Classroom
  ____ Lunchroom ____ Auditorium
____ Alter physical room arrangement
____ Defines areas concretely
____ Reduce/minimize distractions:
  ____ Visual ____ Auditory
  ____ Spatial ____ Movement
____ Teach positive rules for use of space
____ Other ______________________

Presentation of Subject Matter

____ Teach to student's learning style
  ____ Linguistic ____ Logical/Math ____ Musical
  ____ Spatial ____ Bodily/Kinesthetic
  ____ Interpersonal ____ Intrapersonal
____ Model experiential learning
____ Utilize specialized curriculum
____ Teacher tape lectures/discussions for replay
____ Teacher provide notes
____ NCR paper for peer to provide notes
____ Functional application of academic skills
____ Present demonstrations (model)
____ Utilize manipulatives
____ Emphasize critical information
____ Preteach vocabulary
____ Make/use vocabulary files
____ Reduce language level of reading level of assignment
____ Use total communication
____ Use facilitated communication
____ Sharing activities ____ Use visual sequences
____ Other ______________________

Materials

____ Arrangement of material on page
____ Taped texts and/or other classroom materials
____ Highlighted texts/study guides
____ Use supplementary materials
____ Note-taking assistance: carbonless or photocopy of notes of regular students
____ Type teacher material
____ Large print
____ Special equipment: ____ Augmentative communication device
  ____ Electric typewriter ____ Telephone adaptation
  ____ Calculator ____ Electronic devices
  ____ Homemade material ____ Computer
  ____ Video recorder ____ Other: __________

Assignments

____ Give directions in small, distinct steps (written/picture/verbal)
____ Use written backup for oral directions
____ Lower difficulty level
____ Shorten assignment
____ Reduce paper-and-pencil tasks
____ Read or tape-record directions to student
____ Use pictorial directions
____ Give extra cues or prompts
____ Allow student to record or type assignment
____ Adapt worksheets, packets
____ Utilize compensatory procedures by providing alternate assignment/strategy when demands of class conflict with students capabilities
____ Avoid penalizing for spelling errors/sloppiness
____ Avoid penalizing for penmanship
____ other ______________________

Self-Management/Follow Through

____ Visual daily schedule ____ Calendars
____ Check often for understanding/review
____ Request parent reinforcement
____ Have student repeat directions
____ Teach study skills
____ Use study sheets to organize material
____ Design/write/use long-term assignment time lines
____ Review and practise in real
____ Teach skill in several settings/environments
____ other ______________________

Testing Adaptations

____ Oral ____ Short Answer ____ Taped
____ Multiple choice ____ Pictures ____ Modify format
____ Read test to student ____ Applications in real setting
____ Preview language of test questions
____ Extend time frame ____ Shorten length
____ Test administered by resource person
____ other ______________________

Social Interaction Support

____ Peer Advocacy ____ Peer tutoring
____ Structure activities to promote social interactions
____ Focus on social process rather than activity/end product
____ Structure shared experiences
____ Cooperative learning groups

Teach social communication skills

____ Greetings ____ Conversation turn taking
____ Sharing ____ Negotiation
____ other ______________________

Motivation and Reinforcement

____ Positive verbal reinforcement
____ Concrete reinforcement (e.g., tokens, stickers)
____ Planned motivating sequences of activities
____ Reinforce initiation ____ Offer choice
____ Use strengths/interest often
____ other

From *The Evolution of Secondary Education*, by V.S. Thousand, R.L. Rosenberg, K. D. Bishop and R. A. Villa, 1997, *Remedial and Special Education, 18* (3), p. 282. Copyright 1997 by PRO-ED, Inc. Reprinted with permission.

Appendix F

Assessing the Student's Communication Partner

Assessing Peer Participation Patterns

Target individual: ______________________________

Settings/times of day: ______________________________

____

____

1. In what ways do peers participate in daily events:
   - Do they initiate activities? If so, describe:
   - Do they have responsibilities for certain aspects of an activity? If so, describe:
   - Do they work individually or cooperatively? Describe:
2. What types of communication are used during the activity?
   - Do they give instructions? If so, describe:
   - Do they ask for information, assistance, or particular items? If so, describe:
   - Do they have choices? If so, describe:
   - Do they refuse to participate? Is this appropriate? Describe:
   - Do they express their pleasure or displeasure with the activity? If so, describe:

From *Augmenting Communication in Natural Contexts* (p. 255), by J. M. Johnson, D. Baumgart, E. Helmstetter and C. A. Curry, 1996, Baltimore, MD: Paul H. Brookes Publishing Co. Copyright 1996 by Paul H. BrookesCo. Reprinted with permission.

Assessing the Individual's Daily Routines

1. Which activities seem to go well? In which activities does the individual get involved and show enjoyment?

2. Does the individual express a choice in these activities? What are the choices?

3. In which activities could the Individual express a choice and what would be the choices?

4. In which activities is the individual independant?

5. In which other activities could the individual be independant?

6. Is there a rationale for the sequence of behaviours within a specific activity?

7. Are there certain activities or settings in which the individual communicates more or less?

8. Are there certain partners with whom the individual communicates more or less?

From *Augmenting Communication in Natural Contexts* (p. 256), by J. M. Johnson, D. Baumgart, E. Helmstetter and C. A. Curry, 1996, Baltimore, MD: Paul H. Brookes Publishing Co. Copyright 1996 by Paul H. Brookes Publishing Co. Reprinted with permission.

Determining Opportunities and Barriers

Target individual:

Person completing form:

Instructions: Answer the following questions from your personal perspective and provide details for each response.

Return this form to ______________________________

1. Even if the individual signals clearly, do partners have a preconceived notion of the individual's competence?

2. Do partners feel this individual needs to be taken care of, or do they feel that the person should be able to control what happens to him/her?

3. Would the partners be willing to honour a choice that, although allowable, is not what they see as the "best" choice?

4. Do partners see their role as one in which they must follow exact schedules and routines, regardless of the individual's desires?

5. Can partners be comfortable with the unpredictability and loss of control that accompany allowing the individual to make choices?

From *Augmenting Communication in Natural Contexts* (p. 259), by J. M. Johnson, D. Baumgart, E. Helmstetter and C. A. Curry, 1996, Baltimore, MD: Paul H. Brookes Publishing Co. Copyright 1996 by Paul H. Brookes Publishing Co. Reprinted with permission.

Appendix G

Structured Interviews

Communication Interview

Cue questions:	Crying	Aggression	Tantrums/self-injury	Passive gaze	Proximity	Pull other's hand	Touching/moving other's face	Grabs/reaches	Enactment	Removes self/walks away	Vocalization/noise	Active gaze	Gives object	Gestures/points	Facial expression	Shakes "no"/nods "yes"	Intonation	Inappropriate echolalia	Appropriate echolalia	One-word speech	One-word signs	Complex speech	Complex signs
1. Requests for affection/interaction: **WHAT IF S WANTS**																							
Adult to sit near?																							
Peer with disability to sit near?																							
Peer without disabilities to sit near?																							
Adult to look at him or her?																							
Adult to interact with him or her?																							
Other:																							
2. Requests for adult action: **WHAT IF S WANTS**																							
Help with dressing?																							
To be read a book?																							
To play ball/a game?																							
To go outside/to store?																							
Other:																							
3. Requests for object, food, or things: **WHAT IF S WANTS**																							
An object out of reach?																							
A door/container opened																							
A favorite food?																							
Music/radio/television																							
Keys/toy/book																							
Other:																							
4. Protest: **WHAT IF S**																							
Common routine is dropped																							
Favorite toy/food taken away?																							
Taken for ride without desire?																							
Adult terminates interaction?																							
Required to do something he or she does not want to do?																							
Other:																							
5. Declaration/comment: **WHAT IF S WANTS**																							
To show you something?																							
You to look at something?																							
Other?																							

From Assessment of communicative means and functions through interview: Assessing the communicative capabilities of individuals with limited language, *Seminars in Speech and Language*, 10(1), p. 54. Reprinted by permission of Thieme Medical Publishers, Inc.

Appendix H

Assessing the Function of Student Behaviour

Project FACILE

Problem Behaviour Questionnaire

Respondent Information:

Student: ______________________ DOB: ____________ Grade: _____ Sex: M F IEP: Y N

Teacher: ______________________ School: ______________________________________

Telephone: ____________________ Date: ____________

Student Behaviour:

Please briefly describe the problem behaviour(s):

Directions: Keeping in mind a typical episode of the problem behaviour, circle the frequency at which each of the following statements are true.

	Never	10% of the time	25% of the time	50% of the time	75% of the time	90% of the time	Always
1. Does the problem behaviour occur and persist when you make a request to perform a task?	0	1	2	3	4	5	6
2. When the problem behaviour occurs do you redirect the student to get back to task or follow rules?	0	1	2	3	4	5	6
3. During a conflict with peers, if the student engages in the problem behaviour do peers leave the student alone?	0	1	2	3	4	5	6
4. When the problem behaviour occurs do peers verbally respond or laugh at the student?	0	1	2	3	4	5	6
5. Is the problem behaviour more likely to occur following a conflict outside of the classroom? (e.g., bus write up)	0	1	2	3	4	5	6

	Never	10% of the time	25% of the time	50% of the time	75% of the time	90% of the time	Always
6. Does the problem behaviour occur to get your attention when you are working with other students?	0	1	2	3	4	5	6
7. Does the problem behaviour occur in the presence of specific peers?	0	1	2	3	4	5	6
8. Is the problem behaviour more likely to continue to occur throughout the day following an earlier episode?	0	1	2	3	4	5	6
9. Does the problem behaviour occur during specific academic activities?	0	1	2	3	4	5	6
10. Does the problem behaviour stop when peers stop interacting with the student?	0	1	2	3	4	5	6
11. Does the behaviour occur when peers are attending to other students?	0	1	2	3	4	5	6
12. If the student engages in the problem behaviour do you provide one-to-one instruction to get student back on task?	0	1	2	3	4	5	6
13. Will the student stop doing the problem behaviour if you stop making requests or end an academic activity?	0	1	2	3	4	5	6
14. If the student engages in the problem behaviour, do peers stop interacting with the student?	0	1	2	3	4	5	6
15. Is the problem behaviour more likely to occur following unscheduled events or disruptions in classroom routines?	0	1	2	3	4	5	6

From The problem behavior questionnaire: A teacher based instrument to develop functional hypotheses of problem behavior in general education classrooms, by T. J. Lewis, T. Scott and G. Sugai, 1994, *Diagnostique, 19*. Copyright 1994 by Council for Exceptional Children. Reprinted with permission.

Appendix I

Functional Assessment Hypothesis Formulation Protocol

Functional Assessment Hypothesis Formulation Protocol

I. Behaviour Definition

A. Definition Components: Operationally defining the problem behaviour is the first step in conducting an effective functional assessment. In order to arrive at a reliable definition that can be observed and measured, answer the following questions:

1. What does the problem behaviour look like? (check one that is of greatest concern)

_____ talks out/disrupts class
_____ insubordination
_____ not completeing work
_____ inappropriate language
_____ destruction of property
_____ aggression
_____ tardy/late to class
_____ out of seat/place
_____ excessive movement/fidgeting
_____ threatening
_____ theft
_____ other (specify) ______________

2. How is the behaviour performed (topography)? *Consider the following categories: type of physical movement: use of objects:*

____

____

3. How long does it last when it occurs (duration)? *Check box that corresponds to the approximate length of action and circle the appropriate time measurment.*

_____ 1 - 2 seconds/minutes
_____ 3 - 5 seconds/minutes
_____ 5 - 10 seconds/minutes
_____ 10 - 15 seconds/minutes
_____ 15 - 20 seconds/minutes
_____ 20 - 25 seconds/minutes
_____ 25 - 30 seconds/minutes
_____ other ______________

4. How often does it occur (frequency)? Indicate the rate of occurrence using formula:

______________ times per ____________ *(e.g., three or four times an hour.)*

5. How damaging or destructive is the behaviour (intensity) *(e.g., with no physical injury.)*

____

6. Where does the behaviour occur and who is typically involved (setting)?

____

____

B. Definition Summary: Using the answers to the questions above, write an operational definition of the target behaviour. *Example: During transition periods when new students are present, Jane uses aggression by striking peers with an open hand on the back for one to two seconds three or four times a period with no physical injury.*

____

____

____

II. Factor Identification

A. Setting Events: Using the checklists below, identify factors that usually occur prior to or as a result of the problem behaviour.

1. Factors that appear to set off and/or precede the problem behaviour:

Teacher behaviours:

_________ Task explanation/demand
_________ Performance feedback/evaluation
_________ Lesson presentation/lecture
_________ Teacher reprimand
_________ Teacher encouragement/praise
_________ Individual attention to student
_________ Independent work/lack of attention

Student behaviours

_________ Drowsy/sleepy appearance
_________ Physical complaints (hunger, pain, etc.)
_________ Disturbed affect (sad, angry appearance)
_________ Excessive motor activity (fidgety, restless)
_________ Peer attention (negative)
_________ Peer attention (positive)

Environment factors:

_________ Elevated/excessive noise levels
_________ Presence of unusual/extra adult(s)
_________ Presence of unusual/extra peer(s)
_________ Transition task/activity (expected/routine)
_________ Transition task/activity (unexpected/irregular)
_________ Access/availability of preferred activity/task
_________ Termination of preferred activity/task
_________ Access/availability of food

2. Factors that appear to maintain/follow the occurence of problem behaviour:

Teacher behaviours:

_________ Teacher reprimand
_________ Teacher encouragement/praise
_________ Task removal
_________ Withdrawal of teacher attention/ignoring

Student behaviours:

_________ Peer attention (negative)
_________ Peer attention/affirmation (positive)
_________ Withdrawal of peer attention/isolation

Environment factors:

_________ Access/availability of preferred activity/task
_________ Removal of student to alternative setting

B. Behavioural Intent Identification: Using the checklist below, identify the possible functions or outcomes that the behaviour may serve for the student. If more than one function appears to be a reasonable explanation, rank order your responses from 1 to 3 with 1 being the most likely function of the behaviour.

_____ Attention
_____ Tangible reward
_____ Gain access to objects/activities
_____ Gratification
_____ Escape/avoid task/event
_____ Power/control

_____ Acceptance/affiliation/approval
_____ Sensory stimulation
_____ Expression of self
_____ Justice/revenge
_____ Escape/avoid attention
_____ other ____________________

III. Observation

Observer: ____________________________ Date Began: ______________________

Target Behaviour: ____________ ____

____

____

Activity	Time	Days									
		M	T	W	TH	F	M	T	W	TH	F

IV. Functional Hypothesis

A. Hypothesis statement: Using the information from sections I, II and III, construct an hypothesis statement according to the form.

When ______________________________

______________ will ______________________

in order to ______________________________

B. Functional Analysis Plan: In order to test the hypothesis, the following functional analysis will be attempted:

1. Contextual Modification: (What changes in environment/and or teacher behaviours will be attempted?)

____

____

____

2. Curricular Accommodation: (What changes in instructional materials/techniques will be attempted?)

____

____

____

3. Replacement Strategy: (What new behaviours/strategies will be taught?)

____

____

____

From Applying Functional Assessment in General Education Classrooms: Issues and Recommendations, by P. J. Larson and J. W. Maag, 1998, *Remedial and Special Education, 19(6)*, p. 34.7. Copyright 1998 POE-ED, Inc. Reprinted with permission.

Appendix J

Instructional Strategies to Promote Optimal Behaviour and Learning

Instructional Strategies to Promote Optimal Behaviour and Learning

1. **Ensure a democratic classroom.** It is important that all students in the classroom feel that they are accepted and belong in the classroom, and that they will be treated fairly and with dignity and respect under all circumstances. A democratic classroom promotes a climate of mutual respect where all share equal status and everyone's participation is encouraged. In addition, the focus is placed on students' strengths (positive traits); students play a role in classroom decision making (e.g., study topics, projects, bulletin boards, rules for behaviour, etc.); and students are helped with developing self-discipline by being offered consistent, logical, and clearly understood guidelines for their behaviour (Grenot-Scheyer et al., 1996).

2. **Plan for student choice in activities.** Student motivation and levels of task commitment increase if they are able to choose, at least to some degree, the activities in which they engage. Allowing choice also contributes to developing self-determination.

   It may be necessary to present the various choices to the student using a visual format, as a menu of options.

3. **Alternate preferred and non-preferred activities.** Alternating activities according to likes and dislikes can serve as a functional, built-in reinforcer. If the student is made aware that she/he will be able to participate in a preferred activity upon completion of a less preferred activity, the motivation to complete the less preferred task is increased. Work breaks can also be scheduled if a series of nonpreferred tasks is encountered.

4. **Teach the student to use a schedule.** In addition to the general classroom schedule, an individual schedule should be developed for the student with an intellectual or multiple disability.

   An effective format is to have the day's individual activities described on file cards and inserted into a pocket chart in the order that they will be introduced during the day. The activities are described in a visual format that the student is able to understand; through photographs, symbols, words or a combination, depending on the student's skill level.

   At the beginning of the day the student is introduced to the daily activities and to the chronological order in which they will be addressed. Choices within the daily schedule can be discussed at this time.

   As the day unfolds, the student completes the activities as planned. As each activity is completed the student turns over the card in the pocket chart to indicate that the task is completed.

Individual schedules allow the educational team to create "mini-schedules", which may be necessary at various parts of the day. A mini-schedule is a form of task analysis. It serves to break down various activities into their component parts. For example, a Language Arts period could be broken down into the sub-categories that would be addressed during a particular period: creative writing, spelling, silent reading, comprehension study, journal, drama, etc. This task analysis makes the activity seem less nebulous and more concrete for the student, and not as lengthy. Furthermore, the more schedule cards that get turned over the more the student feels she/he has accomplished.

5. **Ensure a meaningful learning experience.** Motivation to stay engaged in a particular task is increased if the task is functional for the student and the student is aware of this functional aspect. The tasks should also be relevant to the student's interests and strengths. Such tasks tend to be more stimulating. Key questions that could be asked when planning activities for the student are:
   - Would the student choose this activity?
   - Will the acquired skill be meaningful?
   - Would the student pay the staff to assist her/him with this task?
   - If the activity was deleted, would the student ask for it?

6. **Match the level of instruction to the student's ability level.** The student with an intellectual or multiple disability can become frustrated if the tasks required from her/him are too difficult and if mastery of all work is required. Under such circumstances a student could develop failure avoidance and/or failure acceptance behaviours. Boredom could arise if the work is too easy. Instruction should be interesting and meaningful for the student, and at a level that challenges the student's capabilities and leads to maximized independent completion of the task. A proper conceptual-cognitive match is determined through a task analysis of the skills required to complete the assignment compared to the student's cognitive skills and receptive and expressive communication skills. The educational team then considers the adaptations that would be needed and the type and degree of assistance and prompting involved. A plan should also be made for fading the assistance.

7. **Use clear and consistent instruction and learning cues.** Instruction should be directed toward each student's particular abilities and needs. Instructions should be short and concise (economy of words), in simple language (without being condescending or disrespectful), and include positive statements and encouragement. Whenever possible, instructions should also build in cues that will promote independence, such as advanced organizers and/or visual supports. Instructions should also be repeated if necessary.

8. **Determine the appropriate length for activities.** Activities that are too short or too long can provoke difficult behaviour. What can reasonably be expected from a student with respect to length of task engagement is determined only through getting to know the student very well. Therefore, the importance of thorough assessment and relationship building is emphasized.

9. **Get to know the reinforcers that are preferred by the student.** The importance of the assessment is again emphasized. It is also important that the educational team watch what is being reinforced. The team has to monitor their interaction with the student and determine the reinforcers that are most effective. They also have to determine if they are inadvertently reinforcing inappropriate behaviour.

   For long-term effectiveness, functional reinforcers that can be built naturally into the daily routine are preferred over those that are artificially introduced.

10. **Offer a degree of variance in activities.** Boredom and frustration may result if the student is consistently asked to perform the same tasks day after day after day.

11. **Pace the instruction to coincide with the student's rate of learning.**

12. **Plan for transitions within the day.** Changing tasks is often problematic for the student with an intellectual or multiple disability and can contribute to problematic behaviour if not well organized. It is important that students be cued to impending transitions and expectations for behaviour during the change. It is also important to keep the routines for transition consistent throughout the day.

13. **Use visual supports whenever possible.** Given the language and communication difficulties that individuals with intellectual or multiple disabilities typically experience, the use of visual supports cannot be overstated.

Appendix K

Handling and Positioning Techniques

Handling and Positioning Techniques

Handling and positioning are instructional considerations for many students with physical disabilities. Proper handling and positioning are needed to give many students the best control possible over their own movements. This allows students to focus their attention on the instructional program and to participate in program activities. Thus, positioning and handling methods are necessary throughout the student's day not merely during a *therapy period*. It is also important to move students the correct way so staff members do not risk hurting the students or themselves.

Handling refers to the approach, physical manipulation, touching or any other interaction with a student. Proper handling attempts to:

- normalize muscle tone and reflexes;
- facilitate normal movement; and,
- achieve appropriate alignment of joints and body parts.

Effective handling is essential to achieving optimal positioning.

Positioning is a process in which specific body parts, or the entire body are manipulated and aligned to obtain the most desirable postures and to maintain function.

The following are general guidelines for the educational team (Hurlburt, 1999 and Arndt, 1999).

Using Handling and Positioning

Because of the vast differences among students with physical disabilities staff will need to learn the handling and positioning appropriate for each student. **It is important for staff to get the specific facts from each student's parents, physiotherapist and occupational therapist.**

Staff should ask parents and therapists questions about:

- special equipment;
- placing and handling methods;
- any positions in which the student should not be placed; and
- the student's ability to do things independently.

General Guidelines

Before moving any physically handicapped student remember the following.

1. Dress for the job.
   - Wear flat shoes that slide easily; avoid clogs, high heels, and floppy sandals that might cause you to trip or lose your balance when carrying a student.
   - Wear comfortable clothing that will not get in the way when moving the student.
2. Plan the move.
   - Before lifting a student, check to be sure that there is nothing in the way (e.g., toys, furniture, newspapers, etc.).
   - Make sure that the area, piece of furniture, or equipment is ready for the student. For example, locking the brakes on the wheelchair or putting the special seat on the toilet.
   - Take a minute to think through the steps you will be taking to move the student.
3. Tell the student that you plan to move her/him.

   Students of any age or ability level should be told that they are about to be moved or repositioned. Being grabbed and moved without any warning may scare or upset the student. Surprise moves also do not let the student get ready for the move or help you. Surprise moves may cause some students to feel as if they are not in control.
4. Ask the student to help you.

   Many students with an orthopaedic disability will be able to help with the move (e.g., by shifting their weight, holding onto a chair or holding onto you) if asked to do so. For example, you might tell a student "I am going to take you out of your chair now so you can spend some time on the rug. Can you lean forward, please?" Keep in mind that some students may require considerable time to make even a simple movement (e.g., reach out and grasp something).
5. Carrying the child.

   Always support the "key points" (e.g., the head, shoulders and hips) when carrying a student and, whenever possible, carry the student so she/he can see where she/he is going.

Positioning

Students who cannot change positions on their own may spend long periods of time in the same position. This can become very uncomfortable for the student. Over a period of time, it can also lead to some very serious problems, such as pressure sores, shrinking of muscles, and deformities.

Pressure sores are like bedsores. They occur when parts of the body press against something for long periods of time. An open sore forms because of poor blood circulation. Shrinking muscles occur when certain muscles are not stretched often enough. The muscles eventually shorten. This shortening limits the child's range of motion. Other deformities (e.g., curvature of the spine) may be caused by not moving the student correctly into a number of different positions each day.

It is important that students spend time in a number of different positions each day. Not only will this prevent physical problems, it also gives the student a chance to view things from a number of different angles. It also allows the student to use all of his/her muscles.

The student's position should be changed every half-hour. Students who are able to move themselves may just need to be reminded. An hour is the longest period of time a student should ever stay in the same position.

Note: A change in position is not the same thing as a change in place. For example, if the student has been sitting in her wheelchair for hours, she/he should spend some time in a position other than sitting (e.g., lying on the floor on her side). Simply moving the student from her wheelchair to a special seat for dinner would not represent a change in position.

Never force a joint to bend or stretch. If a student with cerebral palsy stiffens (i.e., stiffly stretches out her body), it is best to break this pattern by bending her/him at key points. For example, if the student has stretched out her/his legs so that they will not bend at the knees and ankles, slowly bend her/him at the hips. This will cause the rest of each leg to relax.

Students with very severe cerebral palsy may go into *total extension*. This means that the student stiffens with head and shoulders arched backward, arms and legs straight and together, and toes pointed. If this happens, bend the student over at the hips until the rest of the body relaxes.

If the student has any abnormal patterns of movement or positioning, try to position her/him in opposite patterns. For example, if the student crosses her/his legs like scissors when sitting in a chair, separate the legs and place something between them.

Seating a Child in a Wheelchair (or other adaptive seat)

- Push the student's hips all the way back into the chair. Bend them to a 90 degree angle. If the student's hips slide forward or do not make it all the way back in the seat after you move her into the chair, lean the student forward, place your hands under her/his bottom and push the hips back.
- Fasten the seat belt snugly across the student's hip bones. Bring the shoulders and upper arms inward and adjust the chest straps.
- Separate the student's legs, place feet squarely on the foot rests and secure the straps.
- Ask the student to bring her/his head up and to centre it. Help only if needed.

When Seating a Physically Handicapped Student in a Wheelchair (or other adaptive seat)

- The student's hips should be all the way back in the chair and knees and hips should be bent to at least 90 degrees.
- The seat belt should be fastened snugly across the hips.
- The student's head and chest should be in the middle and the chest straps should be fastened.
- Legs should be separated and the student's feet placed squarely on the foot rests. Any foot straps should be fastened snugly.

Positioning a Student in a Side Lying Position

- Roll the student on her side and up against something (e.g., a couch, wall, etc.).
- Bend the student's upper leg to a 90 degree angle at both the hip and knee.
- Place a pillow or wedge under the head and bend the head forward (toward the chest).
- Bend the lower arm to a comfortable position, and move the upper arm forward so it is free to move around.

Placing a Student in Supported Sitting (from a lying position upward)

- Roll the student on her/his side.
- Place one arm across the student's back, holding the student's head and shoulders.
- Place your other hand on the student's hip (which is pointing upward).
- Push down on the student's hip (moving her/his bottom to the floor) while lifting the upper body forward into a sitting position.
- Sit behind the student keeping the hips bent at a 90 degree angle.
- Give the student the smallest amount of help needed to keep her/his balance.
- Do not let the student slump forward or backward; do not let her/him drop her/his head backward. If this happens, ask her/him to fix the problem (e.g., "Head up!").

Placing a Student Over a Wedge (bolster, etc)

- Place the student on her/his stomach.
- Lift the student's upper body by placing your arm across the student's chest and holding your arm furthest away from you back to the child's body.
- Place the student over the wedge so that both arms are forward and over the edge of the wedge; the student's hands or forearms should touch the floor.
- Sidelying: bend the student's upper leg to 90 degrees or more at the hip and knee, bend the student's head forward, and place the upper arm so it is free to reach.
- Supported sitting: bend the student's hips to 90 degrees or more and sit behind the student. Provide the smallest amount of support needed for the student to maintain balance.
- Over a wedge: move both of the student's arms forward so that the forearms touch the floor.

General Guidelines for Lifting

- Remember to plan the move and tell the student before lifting.
- Stand close to the student with one foot in front of the other; position yourself so there is no need to twist your body as you lift.
- Squat down to (or near) the student's level. Bend at the knees and hips, keeping your back straight.
- Get a firm grasp on the student, holding the key points (e.g., the head, shoulders, and hips).
- Keep the student close to your body when lifting; keeping most of the student's weight over your feet.

- Lift by straightening your legs in a smooth, steady manner. Keep your back straight and your bottom down. Use your legs, not your back, to lift.
- If you need to change direction while lifting, step around the student. Turn your whole body as a unit, rather than twisting at the waist or shoulders.

General Guidelines for Carrying

- Use the student's wheelchair or other equipment (e.g., scooter board) to avoid carrying as often as you can.
- When carrying is needed, keep the student as close to your chest as you can.
- Keep your back straight and move your body as a unit; do not arch your back (either forward or back). Be careful not to twist your body.
- Keep a firm hold on the student. If your grasp starts to slip, rest the student against something that will not move (e.g., a wall or counter) while you get a better grip.
- When carrying a student up or down stairs, put your whole foot on each stair. Stay close to the wall and use the wall if you need to rest the student against something for a moment.
- When carrying a student upstairs, bend slightly forward at the hips.
- Do not hurry; take short steps to keep your balance.
- When lifting, you should always bend at the knees and hips keeping your back straight and your bottom down.
- Whenever you can, carry the student so he/she can see where he/she is going.

General Guidelines for Lowering

- Make sure you have a firm hold on the student.
- Tell the student what you are going to do (e.g., "I'm going to put you on your bed now").
- Stand close to the bed, sofa, or other area where he/she is to be placed. If you are lowering the student into a wheelchair, begin by facing the side of the chair.
- Spread your legs to shoulder width, bend slightly at your knees and hips and keep your back straight, even if you are bending far forward.
- Straighten your arms downward and bend your legs. Use your legs, not your back, to lower the student. Lower him in a slow, steady manner. Keep him as close to your body as possible.
- If you need to turn, step around. Move your body as a unit, rather than twisting at the shoulders or waist.

Transfers

When moving a student from one place to another, you will need to use all of these same methods of lifting, carrying, lowering, and positioning which have been discussed. Two kinds of moves that are often required are moving a student (a) between the floor and a wheelchair and (b) between a wheelchair and the toilet.

Floor to Wheelchair Moves

- Move the wheelchair close to the student.
- Lock the brakes. The arms and footrests of many wheelchairs swing to the sides and/or can be removed.
- Tell the student what your are about to do (e.g., "I'm going to put you in your wheelchair now").
- Bend down near the student's level using good lifting posture (e.g., keep your back straight and your bottom down).
- Place one arm across the student's back, holding up his/her head; place the other hand on his/her hip.
- Push down on his/her hip, moving the student's bottom to the floor. At the same time lift his/her upper body to a sitting position, bending the hips to a 90 degree angle.
- Move the student as close to your body as you can. Lift him/her off the floor in a seated position.
- Come to a half-kneeling position and then to a standing position. Use your stronger leg for leverage.
- Keeping the student in a seated position, move to the side of the wheelchair.
- Lower him/her into the wheelchair using good lowering posture (e.g., keep your back straight and your bottom down). Seat him properly in the wheelchair.

Wheelchair to Toilet Transfers

- Move the wheelchair close to the toilet, facing the side of the toilet and lock the brakes.
- Tell the student what your are going to do (e.g., "I'm going to put you on the toilet now").
- Stand on one side of the chair.
- Unfasten all straps.
- Put one arm behind his/her shoulders; put the other arm under his/her legs just above the knees.
- Bend down in a proper lifting position and lift the student out of the chair in a seated position.

- Move to the side of the toilet. Remember to step around if you need to change directions and do not twist your body.
- Lower the student onto the toilet using good lowering posture (e.g., keep your back straight and your bottom down).
- Unfasten the belt, fasteners, etc. on the student's pants. Squat down in front of the student and lift him/her forward so that he/she is leaning on your shoulders then pull his/her pants down.
- Reseat the student and position him/her properly (e.g., hip bent to 90 degrees, feet flat on floor or a foot rest, head centered). Give him/her as much help as he/she needs to keep balanced.

Hints

- Therapists often provide written or videotaped descriptions of methods. If possible, make these available to all staff. Have a staff in-service and review and practise the methods.
- Develop a checklist of the steps in a method. Attach it to the equipment or post it in the area where an activity will occur.
- Label all the parts of equipment.
- Take photographs of students correctly positioned and attach the photos to the equipment or close by
- Positioning may be a means to obtain a goal, but positioning itself is not a goal

Appendix L

Transition Planning

Transition Plan
High School to Adult Life

Date ______________________

Student's Name ______________________ Age ________ Date of Graduation ______________________

High School ______________________

Participants ______________________

____

Transition Issues	Recommendations	Responsibilities					
		Parent/Guardian		School		Adult Service Provided	
		Action	Time Line	Action	Time Line	Action	Time Line
1. Vocational Support							
2. Income Support							

Transition Plan

Transition Issues	Recommendations	Responsibilities					
		Parent/Guardian		School		Adult Service Provided	
		Action	Time Line	Action	Time Line	Action	Time Line
3. Residential Placement							
4. Community Leisure Options							
5. Transportation							

Transition Plan

Transition Issues	Recommendations	Responsibilities					
		Parent/Guardian		School		Adult Service Provided	
		Action	Time Line	Action	Time Line	Action	Time Line
6. Medical Needs							
7. Advocate/ Guardian Options							
8. Long-Term Care (Trust/Will)							

Transition Plan

Transition Issues	Recommendations	Responsibilities					
		Parent/Guardian		School		Adult Service Provided	
		Action	Time Line	Action	Time Line	Action	Time Line
9. Maintenance of Family Relationships							
10. Insurance							

Auser, R. (1998), Saskatoon, SK.

Transition from Grade 8 to High School
Key Questions

Information about the Student

1. Health Medical Needs

____ allergies? therapy? medication?
____ hearing? latest test?
____ vision? latest test?
____ toilet habits? problems?
____ food habits? bring lunch? buy lunch?
____ restrictions in activities? concerns?

2. Transportation

____ bus training?

3. Social Skills

____ friends at school?
____ behaviour? aggression? crying? shyness?
____ reaction to discipline?
____ general social interaction?
____ changes throughout the day?
____ movement in crowded hallways?
____ cafeteria?
____ pep rallies/assemblies?
____ breaks between classes?
____ extracurricular activities?
____ independent arrival at school?
____ mass?
____ coping with teasing, bullying, etc.?
____ friends in neighbourhood?
____ special interests?

4. Skills for Regular Classroom

____ attention span?
____ arrival on time?
____ nondisruptive behaviour?
____ age-appropriate behaviour?
____ age-appropriate language?
____ communication skills?
____ attendance? problems?
____ academics at home? reading, etc.?

5. Personal Management

____ clothing?
____ toileting?
____ grooming?
____ locker?
____ changing for gym?
____ care of materials?
____ general organization?

6. Work Experience Skills

____ accept constructive criticism?
____ taking initiative?
____ self monitoring (tempo, quality)?
____ avoid distraction?
____ self motivated?
____ following directions?
____ working independently?

7. Community-Based Experiences

Work ____________________ Hours ________________ Type __________
Using bus ______________________
Using library ___________________
Using Civic Centre ______________
Shopping _______________________
Going to Church ________________
Going to Mall __________________
Banking ________________________
Restaurant ___________ Sit Down ___________ Fast Food __________
Exercise Class _________________
Jogging/Walking ________________
Bowling ________________________
Swimming _______________________
Museums ________________________
Theatre ________________________
Others ____
____

8. Tutorial

The tutorial period can be used to teach functional academic skills in the classroom setting and can also be used to teach in a community setting. As well, the tutorial period is used to deal with problems encountered in mainstream work and community settings.

Telling time ______________________

Calendar use ______________________

Valuing coins ______________________

Paying for purchases ______________

Speech ___________________________

Banking __________________________

Cooking __________________________

Measuring ________________________

Counting objects ___________________

Phonics ___________________________

Basic sight vocabulary ______________

Warning/safety words _______________

Number words _____________________

Months ___________________________

Telephone book ____________________

Writing numbers ___________________

Subtraction _______________________

Division __________________________

Fractions _________________________

Playing board games ________________

Time concepts _____________________

Identification of coins _______________

Totalling groups of coins ____________

Vending machines __________________

Shopping _________________________

Meal planning _____________________

Personal Data (oral or written) _______

Counting _________________________

Reading numbers ___________________

Reading __________________________

Direction words ____________________

Informational signs _________________

Days of the week ___________________

Writing sentences __________________

City map _________________________

Addition _________________________

Multiplication _____________________

Calculator math ____________________

Playing cards ______________________

Others: __________________________

Auser, R. (1998), Saskatoon, SK.